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THE PACIFIC COAST ARCHITECT

A·MONTHLY·JOURNAL·FOR·THE ARCHITECTURAL · INTERESTS

SAN FRANCISCO
CALIFORNIA

VOLUME FIVE
NUMBER FIVE

AUGUST, 1913

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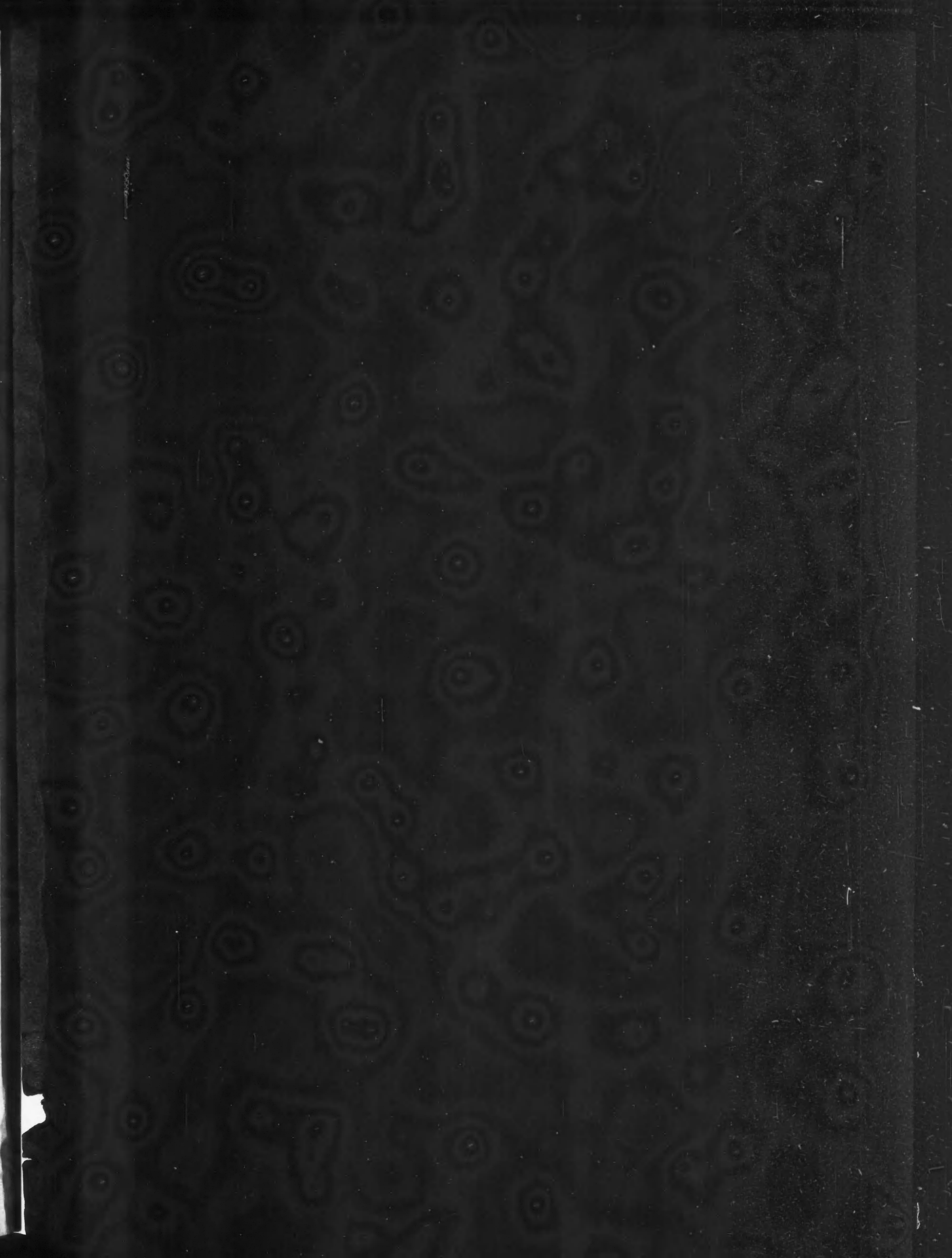

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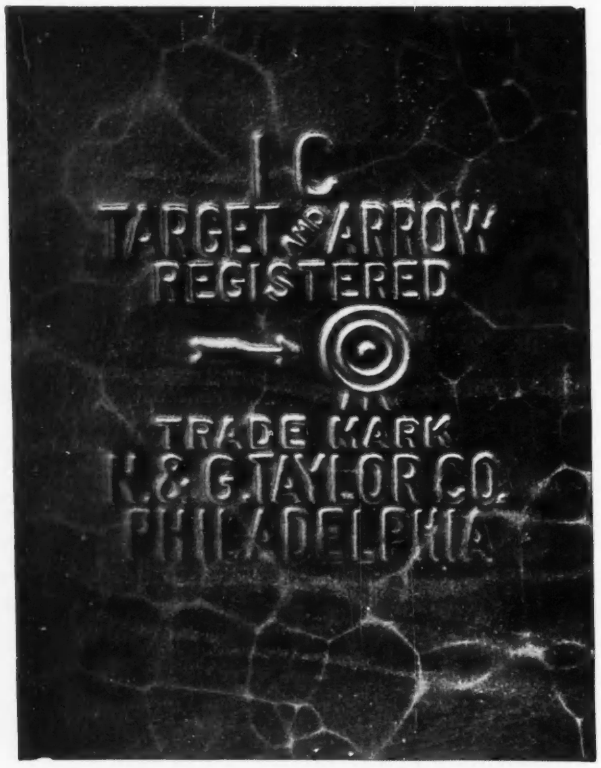

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"Target and Arrow" Roofing Tin

The illustrated section of this magazine contains several pages showing the plans of the Lincoln Park High School, Tacoma, Washington, designed by the well known firm of architects, Messrs. Heath & Gove, of Tacoma.

They have specified N. &. G. Taylor Co.'s Target-and-Arrow for the roof of this building, requiring a carload of over 40,000 lbs., which is already shipped from Philadelphia direct to the building.

This is good evidence of the high reputation this oldtime, handmade roofing tin enjoys.

A new and notable feature on the Pacific Coast is the laying of this tin over battens, or wood strips, producing an effective roof treatment, referred to on other pages of this issue.

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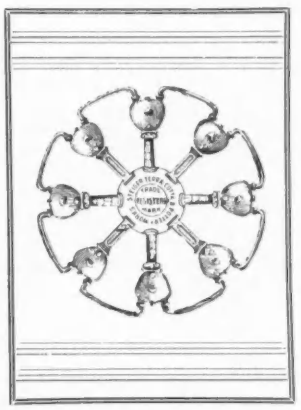

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The Pacific Coast Architect

VOLUME V — SAN FRANCISCO, CALIFORNIA, AUGUST, 1913 — NUMBER 5

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The Editor will be pleased to consider contributions of interest to the readers of this publication. When payment for same is desired this fact should be stated. Self addressed envelopes must accompany all such contributions.

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Current Comment

Official figures, recently compiled, place the cement production of the United States last year at 83,351,191 barrels, which is a new high record and an increase of more than 3,800,000 barrels in a year.

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At Glendale, Calif., a drinking fountain built of cobblestones was moved on trucks with a donkey engine, to a new location several blocks distant. The fountain weighs two and one-half tons and is fifteen feet high.

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In the Province of Alberta, Canada, there is an odd Ruthenian village. All the houses are built of logs, with doors of woven twigs, swinging on home-made hinges, with wooden hasps for latches. The roofs are of poles and cross-woven wheat straw, treated with pitch. Not a single nail is used, and the floors are of hewn logs.

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The total value of new buildings erected in Medford during 1913 will equal $197,000. Civic improvements in the past four years cost $1,854,000. The city now has 20 miles of paved streets, valued at $1,000,000; 30 miles of water mains, worth $250,000; 27 miles of sewers, worth $204,000; 2 miles of storm sewers, worth $25,000; 27 miles of concrete walks, worth $100,000; a 23-mile mountain water gravity system, costing $275,000.

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A jeweler at Winona, Minn., after four years work, has produced a miniature working mechanical model of his city. It shows all office buildings, bridges, flour mills, churches, factories, river boats, street cars, etc. Tiny manikins and street traffic operated by electricity, give appearance of life and activity. At night the current illuminates the buildings and streets.

Departments Merged

One of the results of the change from former methods in Portland to the commission form of government, has brought about a merger of the City Plumbing Department with that of the City Building Inspector. The combined offices are under the general supervision of Commissioner Robert G. Dieck, while Building Inspector Plummer is actively in control.

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"Emotions in Stone"

George A. Birmingham, in "The Living Age," thus beautifully expresses himself relative to emotions in stone:

"Pillars and arches reach heavenward. The whole mass of stonework climbs to dim, divine heights; but it does so at the cost of ceaseless stress, almost unbearable effort."

"When standing in the nave of Notre Dame one has the feeling that demons are lurking in the shadows. I feel sure that the men who built these great temples felt this. Their gargoyles were not mere grotesques, untimely outbreaks of an irrepressible comic spirit. They represented haunting devils."

"I am repelled at times from these buildings, because they oppress me. I am continually conscious of some vast power which overwhelms me."

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Permanency in Building

An encouraging indication in almost every Western city is the fact that buildings of flimsy and cheap construction are on the wane. Many of our cities, by reason of sudden access of population, were compelled by sheer force of circumstances, to use the cheapest material accessible—lumber. This tended to a sort of mush-room-like growth, and could not, by any means, become stable or permanent. Development of business interests, accession of wealth, rendered wooden buildings unfit. Where the demon of fire did not do the work of eradicating them, the advancement in values of the sites they occupied have forced owners to remove old wooden buildings generally. In their place have been reared structures of steel and reinforced concrete. Lumber, for many purposes, is no longer applicable, but the lumber business suffers not a whit, for it is otherwise utilized. The modern tendency is to permanent structures. Iron, steel, concrete, brick, terra cotta and natural stone are becoming more and more popular. With their increased use, there will be a yearly lessening danger of conflagrations, and of course a lessening insurance rate. It is only a question of a few years when American cities will gradually assume that same permanency in their buildings that serves to distinguish the cities of the Old World.

Figures Show Progress

Building construction for the month of July showed a commendable activity in San Francisco. Permits were issued and contracts filed to the extent of $2,055,210 for private construction and contracts were let on the Panama-Pacific enterprise to the extent of $1,689,815, making in all $3,745,025, exclusive of city and government work. This is against $2,134,237 for the month of June, and $2,677,088 for the month of May, including the same items. Of the $2,055,210 for private construction, $1,257,131 was for brick and concrete construction; $661,026 for frame buildings and $137,053 came under the head of alterations and additions. These figures show that in spite of the depression of business generally there is a considerable activity in the building line such as to indicate that there is faith in the future of the city.

Compared with other years the record for July is as follows:

July, 1904	$1,763,939
July, 1905	2,087,965
July, 1906	1,959,290
July, 1907	4,687,516
July, 1908	2,921,152
July, 1909	3,144,482
July, 1910	1,596,613
July, 1911	2,126,720
July, 1912	2,217,215
July, 1913	3,745,025

While $1,689,815 of last month's figures were for the work of the Panama-Pacific Exposition, still the total of private construction runs upwards of two millions. This is a good figure considering that it was vacation period generally and business is dull. From present appearances things ought to look up the last half of the year and assume a more buoyant tone.—San Francisco Pacific Daily Builder.

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Department of the Interior

BUREAU OF MINES

New Publications. (List 21—August, 1913.)

BULLETINS.

Bulletin 59—Investigations of detonators and electric detonators, by Clarence Hall and S. P. Howell. 1913. 73 pp., 7 pls., 5 figs.

Bulletin 61—Abstract of current decisions on mines and mining, October, 1912, to March, 1913, by J. W. Thompson. 1913. 82 pp.

TECHNICAL PAPERS.

Technical Paper 15—An electrolytic method of preventing the corrosion of iron and steel, by J. K. Clement and L. V. Walker. 1913. 19 pp., 10 figs.

Technical Paper 42—The prevention of waste of oil and gas from flowing wells in California, with a discussion of special methods used by J. M. Pollard, by Ralph Arnold and V. R. Garfias. 1913. 15 pp., 2 pls., 4 figs.

Technical Paper 47—Portable electric mine lamps, by H. H. Clark. 1913. 11 pp.

MINERS' CIRCULAR.

Miners' Circular 12—The use and care of miners' safety lamps, by J. W. Paul. 1913. 19 pp., 4 figs.

The Bureau of Mines has copies of these publications for free distribution, but cannot give more than one copy of the same bulletin to one person. Requests for all papers cannot be granted without satisfactory reason. In asking for publications please order them by number and title. Applications should be addressed to the Director of the Bureau of Mines, Washington, D. C.

Architects Hold Picnic

The Spokane Architectural Club held its annual picnic at Hayden Lake, August 20. F. P. Rooney was chairman of the committee in charge of arrangements. The other members of the committee were: H. G. Ellis, H. C. Whitehouse, G. F. Schofield, E. V. Price and H. C. Bertleson.

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Building More Fire-Proof Homes

Is it not time that the fireproof house receive greater consideration on the part of architects and owners? It so happens that a fireproof house is also one practically free from deterioration. There are no rotting timbers, and coal bills are generally lower than with cheap, inflammable construction.

But it is generally thought that fireproofing entails great expense; that any of the accepted safe materials are beyond the purse of the average home builder. That this is not the case is being proven by numberless examples of fireproof construction now under way, after designs of architects who understand how to keep costs down.

At the Chicago cement show, held last January, one of the most interesting exhibits was that showing a typical suburban home in full size and built entirely of fireproof material. It was a true concrete house, concrete hollow tile having been used for wall and floor material, and a stucco coat having been applied for the finished surface.

It is commonly believed that a coating of stucco on a good frame renders a house fireproof. This is not the case. The thin protecting shell is no protection from fire within, and its life is limited. But true fireproof construction with approved materials gives perfect security. Stucco on such a foundation is ideal.

As a matter of fact, the house at the cement show was necessarily built only in part. The depth of the booth being 14 feet, the porch, porch roof and the front wall of the house, including a bay with casement windows off the living room, a casement window off the hall and the entrance were all that could be actually constructed. The balance was painted on canvas by one of Chicago's theatrical scene painters, and gave in perspective not only the house, but a typical suburban setting.

The roof of the home is an important feature that is seldom given sufficient consideration. Where houses are built close together, the danger of fire being communicated from house to house is great, where wood shingles are used. There is perhaps nothing cheaper nor better than the wood shingle, if we disregard entirely the danger from fire, and yet this danger is so real today with our crowded city conditions that the makers of fireproof shingles, of cement-asbestos or tile, of clay or cement are finding a ready market.

In order to carry out in every detail the purpose of the house, a fire-proof roof of asbestos shingles was used, and, while its cost was found to be practically double that of wood shingles, yet this additional cost must be reckoned as a pure investment, there being no depreciation, and the greater safety bringing a real reduction in the annual fire insurance costs.

The home owner should look well to the materials specified by his architect and used by his contractor when building his house. He should be sure that the walls are well insulated, and preferably that they have a double air space for this means a considerable saving in coal and a more comfortable house through the hot summer.—P. D. Van Vliet.

Lighting Systems

There was a time when the majority of mankind awakened from slumbers at 4 in the morning and retired at 8 o'clock in the evening, except on special occasions. Since the gradual improvement of lighting systems, which has now almost reached perfection, it is safe to say the majority of mankind now awakens at 7 and retires at 11 o'clock, except on special occasions.

Whether the new order of things has resulted in any great benefit is a much debated question. It is sufficient for present purposes, however, that the new order of things is the most acceptable to the majority and that it is probably here to stay.

Lighting systems were first considered a luxury. They are now an absolute necessity. This is the golden age of mankind. There is much to do and much to see in this wonderful world, and the introduction of artificial light has made it possible to do and see a great deal more during the natural lifetime of the present generation than was possible several generations back.

The question as to which system of lighting is the most satisfactory, all things considered, is hardly debatable. Electricity is cleaner, safer, healthier, more convenient and in most cities more economical than any other system of lighting. It is not, however, cheap enough to be of practical use for heating and cooking. There has been a great deal of improvement since the days of the old horseshoe carbon light. In fact the increased brilliancy has been a little overdone, so that the brightest electric light now obtainable, also the brightest gas light obtainable, is actually harmful to the sight unless enclosed in ground glass globes or in other ways arranged to diffuse it.

This brings us down to indirect lighting, by far the most practical lighting system for all interior purposes, domestic or commercial. It was thought that when a light of extreme brilliancy had been invented that all lighting problems had been solved, that every part of a room could be made as light as day, and this is really possible, but not practical.

Observe the daylight in your room. If your room is on the north side of the house no direct rays of the sun enter it. Still during the middle of the day you have ample light of a soft diffused nature. On the south side of the house where the direct rays are admitted you will invariably draw your curtain so that the sun will not shine directly into your eyes. Even the direct rays which strike the wall, floor and furniture, are sometimes so brilliant as to create discomfort.

Place a book in the direct rays of the sun and try to read from it, you will find the light blinding and if continued indefinitely would soon ruin the sight. This easily proves that the most practical light is a diffused or indirect light. Therefore, when you place a miniature sun in the middle of a room receiving direct rays from it in all directions you experience an effect that is very tiring to the eyes. When this brilliant light shines directly upon your book or writing paper it is injurious. Since it would not be practical to place the chandeliers outside of the window and attempt to have them shine in, in the same manner, and with approximately the same brilliancy as the sun, it is necessary to keep this miniature sun within each room.

To diffuse the light various kinds of opalescent, ground glass and other shades have been made, but all have proved more or less unsatisfactory. Most of them will shade the light from a greater portion of the room and especially the ceiling, casting a very strong glare immediately below the chandelier, so that when you are in the shadow you have not light enough and when you are in the glare the light is too strong.

One day some bright genius solved all the problems as quickly and as easily as Columbus defeated the laws of gravitation by standing an egg on end, when the sages and philosophers thought it impossible. This genius simply turned the chandelier upside down, and instead of reflecting the light downward against carpets, tables and other miscellaneous things that absorb instead of reflect light, he shines it against the ceiling, simply requiring that the ceiling be of light color, and lets the light fall in a diffused manner, giving a soft glow to all parts of the room, which creates no shadow except directly below things and not much of that. Simple, isn't it? But like all simple things, it must be done right.

The most practical color for the ceiling is a light cream, although other light colors, such as a very light sky blue, have been used and given satisfaction, when enough indirect lighting is provided. These inverted chandeliers which look like ornamental hanging flower baskets suspended by chains, are a varying width and design to suit the requirements of each room and the taste of the owner.

To get the proper amount of light is a matter of scientific figuring by a lighting engineer, who carefully computes the amount of light required to properly light a certain sized room of certain decorations and from his scientific figures determines the width and number of the chandeliers (when the room is large), and how far they should be suspended from the ceiling. Indirect wall lights are also used, but these are not as practical as the drop lights or chandeliers from the ceiling, unless a number of them are placed all about the room, which is sometimes done when the ceiling is low. The new tungsten lights now made by several concerns are a great economy over the old style carbon light, not only in the actual amount of current consumed, but by reason of the fact that fewer of them are required for sufficient lighting purposes.

Suburban lighting systems offer many serious problems. There is no individual lighting plant that will not occasionally give some trouble. The most practical individual plant is a little too expensive for the average suburbanite. Sometimes little colonies of homes will go together on a private plant of this nature, sharing the expense to maintain it either equally or in proportion to the number of light outlets in each house. Between acetylene and gasoline gas plants the latter is advised. When an acetylene plant can be made that is absolutely fool proof it has its advantages over a gasoline plant, but no matter how careful a man may be he is apt to leave the inclosure of his plant unlocked and prying children or servants are bound to make personal investigation to see where the danger lies of which they have been warned so much with usual results. The gasoline gas plant offers the advantage of always having the fuel quickly available, and it can be used for cooking as well as lighting. Most gasoline gas plants are now arranged with the storage tank in the ground outside of the house.

The arrangement of lights for the interior is one too complicated to discuss at length in a general way, each room providing its own problems. But these few points should be borne in mind. Always provide switches for all electric chandeliers at convenient places. Never place a light fixture where a swinging door will strike it. Never place a gas fixture where a curtain will blow into it or where it is apt to receive a strong draught from an open window. Aways provide a small light for each bureau, piano and washstand and preferably two, one

on each side. All chandeliers should be on three-way switches, so that only one light can be turned on when desired, such as one light in the dining room by which to set the table, but still so that all the lights can be turned on at will. Writing desks, typewriters, and the like should always have local lights. Never buy very ornate lighting fixtures. It is a constant care to keep them clean and they do not look as well as plain fixtures of neat design. Black iron fixtures should not be used for they absorb the light when they should reflect it.

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Harmony in Private Buildings

The legal sides of city planning—the police power to control housing conditions, height of buildings and similar matters that are developing in this age of progress—were discussed by Edward M. Bassett of New York before the recent National Conference on City Planning. In a paper which was heard with interest he said:

"Broad exercise of community control of the use of private property is requisite. The city should have the power to impose restrictions on the use of private land so that the community's needs shall be observed. These needs extend not only to sanitation and safe building construction, but include adaptation of buildings to their surroundings, distances of buildings from and relation to streets and public places, creation of zones for industry, business or residence and prohibition or regulation of unsightly objects. The police power is the power of safeguarding the community. This power is entirely distinct from the right of condemnation. The city by its exercise takes no title from the private owners and makes no compensation.

"The courts have chosen to limit the police powers to health and safety on the ground that a more extensive application would violate the constitution both as to taking without compensation, and without due course of law. Yet no one can doubt that the city of the future will need to enforce harmony of buildings, the setting back of buildings in certain areas, the limitation of heights and to some extent the segregation of residential, business and industrial structures.

"The community cannot carry out any worthy plan if a private owner can build any shape, anywhere and for any purpose. The city architect in many foreign cities has the power to disapprove the plans of unsuitable and inharmonious buildings. Modern German cities like Cologne, Frankfort and Dusseldorf have planned and restricted their suburbs as to height of buildings, their use and the proportion of private land to be covered.

"It is unthinkable that the city must compensate all of the private owners if reasonable esthetic restrictions are placed on their use of city land. Yet if the police powers cannot be invoked there is no resort but to eminent domain, which always requires compensation. No city can afford to pay money to all private owners to make them respect community rights, and community rights will at some time extend to regulating advertising signs, harmonizing buildings and segregating industries. Progressive legislation is required, and if all else fails, constitutional amendments must be made. These should be general and extend police powers to reasonable esthetic objects, rather than to enumerate the various forms of community necessities."

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A German vacuum ice machine of convenient size for household use does away with the need of using dangerous acids and can be operated by hand or a small electric motor.

Coast Architects Honored

Four firms of Pacific Coast architects are included in a list of seven that have been selected by the United States Treasury Department as competitors to furnish the plans for the new Portland, Ore., postoffice. The chosen firms are: Bliss & Faville, San Francisco; Ellis F. Lawrence, Whitehouse & Fouilhoux and Doyle & Patterson of Portland; Clinton & Russell, J. H. Friedlander and John Russell Polk of New York.

The Coast architects have just received instructions in regard to what must be included in the plans and general rules governing the competition. The new postoffice building will cost $1,000,000 and will be a two-story structure, covering an entire block.

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Canadian Architects to Meet in Calgary Next

The Royal Architectural Institute of Canada has issued the following call for the sixth annual general assembly of the organization to be held in Calgary in September:

The sixth general assembly of the Royal Architcetural Institute of Canada will be held at Calgary, Alberta, on September 15 and 16. A very interesting programme is being prepared, which will include matters of interest to every architect in the Dominion.

Every Canadian architect is cordially invited and is welcome at all sessions and entertainments, whether a member of the R. A. I. C. or not.

This is the best opportunity to visit Calgary, the city phenomenal, and the Calgary architects have promised a royal reception.

The programme will be sent early in August to all members of the R. A. I. C. and will contain all the particulars concerning the assembly.

The committee of arrangements of the assembly is composed as follows:

J. H. G. Russell, F. R. A. I. C.; G. M. Lang, F. R. A. I. C.; L. M. Gotch, M. R. A. I. C.; W. D. Cromarty, M. R. A. I. C.; and Alcide Chausse, F. R. A. I. C.

ALCIDE CHAUSSE, Hon. Secretary.

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Bricklayer Performs Operation

George Washington, famous leader of revolting armies and first President of his country, has a brand new nose.

The particular George in question is the 16-foot stone statue which stands on the very top of the dome of the court house at Washington, Pa. The delicate surgical operation, replacing a lost feature of his countenance, was made possible by the daring and nerve of Charles Curran, a local brick contractor.

Curran, with his assistants, was making repairs to the dome when he noticed that the nose on the giant statue above him was missing. Taking a ladder and a rope and one assistant he climbed to the top of the statue, where he found that the olfactory organ had been torn away, leaving the father of his country with a decidedly blank expression.

Curran constructed a new nose out of a composition which he himself evolved and which he believes will be as permanent as stone. He then clambered up to the head of the statue and seating himself upon the lofty brow 185 feet above the sidewalk he replaced the lost nose.

Ruskin College

Oxford University is housed in twenty-seven colleges dotted about the ancient city in the heart of Southern England. There is no more beautiful collection of ancient architecture surviving to this day and filling modern uses. The history of about nine hundred years is written in these gray stone colleges and halls.

Among these ancient colleges of stone there stands one of red brick that holds a hundred students. It is but fourteen years since it was founded in honor of John Ruskin, one of the many famous men who loved Oxford as their alma mater. The founder was Walter Vrooman, an American. The new buildings just finished were opened on Washington's last birthday.

To have been graduated from Oxford University has been the hall mark of two hundred generations of students, most of whom belong to the aristocracy of England. Ruskin college was built as "a message from the people of America to the working men of Great Britain." The gift was accepted by and on behalf of plain working men, who were ready enough to give up four years of their life for the higher learning that was there opened to them. They go in and out, shoulder to shoulder, with the sons of the aristocracy, meeting and companying with them on terms of complete equality, both of them so giving testimony to the essential democracy of the England of today.

Ruskin college receives from its students only fifty-two pounds sterling for the college year of forty-four weeks, and gives them board, residence and education.

According to the deed of foundation the course of study covers social and economic subjects, with history, English composition, and courses of lectures on current social and political questions.

Many of the students have passed examinations and have graduated in the school of economics in the university. In the last three years, of the 52 men who entered examinations for the diploma 28 had been students of Ruskin college. Twenty-six passed successfully and 16 obtained distinction.

Dr. Slater is the principal. He is, as he should be, an enthusiast for the training of working men on the lines of Ruskin College. The professors are recognized authorities on their several subjects, and the education is thorough, from the ground up.

What becomes of your men? Dr. Slater was asked. "Many become teachers or lecturers at the various working men's educational institutions. Some have written books on economic or social subjects and made names and positions for themselves. Many, however, go back to their former work as mechanics and so on, carrying the inspiration of higher ideals into their old surroundings."

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Rapid Method of Coloring Drawings

A method of coloring drawings and white prints, using ordinary wax crayons and gasoline, has proved rapid and satisfactory. Crayon of the color desired is applied, and then rubbed with a piece of cloth, wet with gasoline, until the color is even and extended to the limits desired. If it overruns the lines, it can be erased with a pencil eraser. The crayon should be rubbed on lightly, but not necessarily uniformly. Yellows, purples, greens and light blues produce better results than other colors. The method is applicable to egg-shell and smooth drawing papers and to white prints on both paper and cloth.

Victoria Chapter

Victoria Chapter of the British Columbia Association of Architects at its last annual meeting elected the following officers: J. C. M. Keith, president; Major Ridgeway, vice-president; H. Emms Read, secretary-treasurer; Messrs. P. L. James, E. N. Butler, H. J. R. Cullin, R. Rose and K. B. Spurgin, executive council.

The chapter now numbers 62 full members, 25 associate, and 5 student members Two of the members have been appointed to act with the building inspector in examining applicants for the position of assistant inspectors, and another member has been engaged in drawing up the program for the Provincial Jubilee hospital competition.

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City Planning a Science

City planning is a science. The landscape gardener is but one factor in such work; the engineer is another perfectly necessary factor; the sociologist is another. The business man, the man of affairs, is another. Indeed it requires the very best brains of the community to work disinterestedly and unitedly for a common purpose.

No one man can evolve a perfect scheme for the remodeling of a city. History proves this. Chicago, San Francisco and Portland have equally shown its fallacy, whereas Washington and Cleveland are splendid examples of the united efforts of able men.

The wise course for any city to adopt is to call in a man who is experienced, and whose judgment is mature, to make a careful study and analysis of these rival plans; to get into touch with the various civic organizations; to select the best features in the respective designs; and out of them to evolve the most satisfactory and economical treatment; for I cannot too much emphasize the fact that no one man can possibly devise the most satisfactory and complete plan.—Thomas Hawkes, Portland.

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Examining Board for Architects Upheld

The Supreme Court of Illinois handed down a decision this week which decides that the State Examining Board for Architects has the right to act for the purposes for which it was created. Last October a committee of the Chicago Architects' Business Association laid before the State Examining Board for Architects a mass of papers tending to show a violation of the law in the proposed construction of a theater, plans of which had been prepared by David Saul Klafter. Mr. Klafter sought and obtained from the Superior Court of Cook County, without a hearing, an injunction, forbidding the State Examining Board for Architects from taking action in the matter, claiming that the law, which gave the examining board the right to revoke licenses, and particularly Section 10, was unconstitutional. By the decision of the Supreme Court of the State, rendered this week, this injunction has been dissolved. Now that the question of the authority and legality of the State Examining Board for Architects has been called into question, the board has, through its attorney, Henry R. Baldwin, made application in the court for a mandamus to compel the owners of buildings to construct the same in compliance with the law. The net effect of the decision is to secure the better enforcement of the building laws of the city and State.—American Contractor.

Extracts from the Proceedings of the Forty-sixth Annual Convention of the American Institute of Architects, Washington, D. C., December, 1912

In lieu of a report from the Committee to confer with the National Association of Master Steam and Hot Water Fitters, the following letter to the Committee was read by the Secretary before the Forty-sixth Annual Convention of the American Institute of Architects in Washington, D. C., December, 1912. This, and all other Reports will be found in full later in the Journal of the Institute.

NOTE:—See last page for the action taken by the Convention in regard to this "Report."

NATIONAL ASSOCIATION OF
MASTER STEAM AND HOT WATER FITTERS.

New York, May 29, 1912.

Messrs. D. E. Waid, B. S. King, W. D. Hewitt.
Committee of Conference, American Institute of Architects.

Gentlemen:

At the conference between your Committee and the Committee representing the National Association of Master Plumbers and the National Association of Master Steam and Hot Water Fitters, held on May 20, 1912, at 260 West Broadway, New York City, the undersigned, appointed to prepare and submit to you a statement or brief covering the subject discussed, such brief to be used by you in preparing your report to the American Institute.

The subjects considered were:

1. The evils resulting from the practice of including the Plumbing and Steamfitting in "General Contracts."

2. The injustice of requiring bidders to pay for Plans and Specifications.

3. The problem of placing responsibility for damages caused by defective materials where it justly belongs.

As to eliminating the Plumbing and Heating from General Contracts we submit the following:

1. The number of General Contractors is seldom less than five and sometimes fifteen. Each General Contractor gets estimates from not less than three Plumbers and Steamfitters—sometimes from a dozen or more. The actual cost of each Plumber or Steamfitter who estimates is not less than one-half of one per cent of the amount of estimate.

If figured direct for Owner the number of bidders would average five. On a $2000 contract, the cost to "the trade" would be $2000 x ½% or $10.00 x 5, or $50.00.

If figured under General Contractor the number of bidders would average thirty, making the cost to "the trade": $2000 x ½% or $10.00 x 30, or $300.

The average profit on a $2000 contract would not exceed $250. When figured for Owner "the trade" makes $200 net, or 10% on the contract.

When figured for General Contractor "the trade" actually loses $50.00.

Of course, the man who gets the contract makes $240, but it is at the expense of his fellow craftsmen, and "the trade" as a whole is poorer than if the work had not been done.

This is not an exaggerated statement. It describes a process that is in continuous operation, and if all the work done by the Plumber and Steamfitter were on the sub-contract basis, there would be no survivals after a few years.

2. Estimates given to General Contractors are not, as a rule, fairly handled. No provision is, or can be, made for their being opened in the presence of bidders and the contract awarded in accordance with fair competitive rules. Usually they are opened as received by the General Contractor or one of his employees, and the figures may be easily obtained by favored competitors. If the General Contractor gets the work, it is seldom that he awards the sub-contract on the merits of the sub-estimates he has received.

Either the favored party is offered the contract at the price of the lowest bidder, or else new bids are obtained, often from new bidders, and not infrequently the lowest final bidder is induced to take the contract at even a lower price by false representations as to the lowest prices of his competitors.

3. There are very few General Contractors in whose offices sub-bids are fairly handled.

The nature of our work is such as to justify and often necessitate our direct contract with the Owner or his immediate representative, the Architect. The General Contractor is not concerned in such changes and betterments as are often made clear to the practical artisan as the work proceeds, and frequently an inferior installation is made because the General Contractor cares only to comply with the specifications.

4. Many General Contractors are unable to properly finance the work they undertake, and depend largely upon their credit to carry it through. In this "credit" they include the sub-contracting Plumber and Steamfitter.

There is scarcely a member of our craft who has not experienced great loss through this condition of the General Contractor's finances. Almost invariably in such work our payments are delayed long after the General Contractor has received them.

It is manifestly unfair that a third party should stand between us and the Owner, with power to embarrass our business by withholding payments.

5. It is reasonable to conclude that the same work done through a General Contractor will cost the Owner more than if done directly for the Owner. In some way the General Contractor will get a profit. If it is made to seem that the building costs less by General Contract, the Owner may be sure that he is getting less in quantity or quality. No Plumber or Steamfitter will do the same work cheaper for a General Contractor (with all the risks and disadvantages) than he would do it for the Owner.

While the evils of sub-contracting are generally recognized among the Master Plumbers and Master Steamfitters, and resolutions have been adopted by both our National Associations reprobating the practice, we have no power to compel our members to cut out such business.

Very many, however, refuse absolutely to figure for General Contractors, and among those who thus refuse are many of the most reliable concerns in both branches of the business.

This class is steadily growing, especially among those who do high grade work. The General Contractor is

already dependent upon such concerns in the Plumbing and Steamfitting business as are considered below the average as to business standing and mechanical ability.

It is hoped that the American Institute of Architects, recognizing the practice as a growing evil, tending to degrade the business of the Master Plumber and Master Steamfitter and to foster the kind of work which appears better than it is, will take such action as will commit the profession to an earnest effort to eliminate it.

Such a deliverance by your Society will greatly aid us in securing practical unanimity among our members in their efforts to abolish a practice which we believe to be a serious menace to our business.

Referring to the second subject of our discussion, "the injustice of requiring bidders to pay for plans and specifications," your Committee seemed not to know that this is of frequent occurrence.

We do not object, when taking plans for figuring to making a reasonable deposit, to be returned when plans are returned, nor to paying for additional plans when we need them for additional use after the contract is awarded. Our objection is to the making of a charge for them when used only for estimating, before the awarding of the contract. The necessary expense of figuring any job of steamfitting or plumbing is seldom less than ½% of the estimate. Competitive bids are obtained for the benefit of the Owner, and it would seem as if a charge for plans should not be added to the other necessary cost of the bidders. We infer from the statements of your Committee that there is no rule of your society justifying such charges, but since the practice already obtains in some places, and is liable to spread, we would suggest that a resolution of the American Institute covering the matter would prevent the growth of what we believe to be an unfair practice.

The third subject of our discussion, "placing responsibility for damage caused by defective materials," was recognized as a difficult one.

The Owner should not suffer loss because of imperfect materials; nor should the Architect who specifies goods of standard make; it is right that the contractor, who is supposed to be expert and to carefully examine all materials he uses, should be responsible when it is possible to discover the defects; but there are many cases in which it is impossible to discover the defect until the damage is done. This is especially true in regard to cast iron and enameled ware, in which defects, not discoverable under the usual tests, develop within a year from the time of the installation. These goods are generally specified by the Architect, and the Contractor must purchase them as specified. He must guarantee them for one according to the terms of nearly all contracts. No manufacturer of these goods will guarantee them to the contractor except to the extent of furnishing a new fixture, or part of the same, which may be found defective, excluding all cost of damage done and of replacing the defective fixtures, which cost is often from twenty to one hundred times the cost of the bare fixture.

In all such cases the loss should fairly fall upon the manufacturer. But we are unable to get from him a guarantee, except as above stated, and for lack of this we often sustain losses far in excess of all profits.

We believe that the Architects can help to right this great wrong.

If you will put into the contract a clause providing that the Contractor shall deliver to the Architect or Owner a written guarantee from the Manufacturer to make good all damages caused by the defects in the materials of his make used on the job and developing within one year from the date of installation, we can then demand such guarantee from him.

It is quite possible that many manufacturers will fight such a demand, but some will concede it, and others will quickly follow. It can be obtained if the Architects will help us, and once secured, it will place the responsibility where it belongs and be of great benefit to Owners and Contractors.

By direction of the Conference Committee of National Association of Master Plumbers and National Association of Master Steam and Hot Water Fitters, we desire to thank the American Institute of Architects for the privilege of conferring with you on these important matters, and to express the hope that our conference will result in such action as will be of mutual benefit.

Respectfully yours,

(Signed) JOHN TRAINOR,
EDWARD B. DENNY,
Sub-Committee.

NOTE:—Committee appointed by the President to consider the reports of Special Committees, submitted the following recommendations to the Convention, which were adopted with the report of the Committee.

(t) **To Confer with the National Association of Master Plumbers.** Three points are raised:

1st. The letting of contracts in the trades involved apart from the General Contract.

This is a broad question, involving equally all trades and also important general considerations in the carrying on of building operations. The practice of a divided contract is not a new one; on the other hand, the practical necessity, under certain conditions, of a general contract, can not be eliminated. To cure all of the ills complained of, and many others, is the recognition by the Architect of his responsibility towards the sub-contracts, as well as toward the general contractor and owner. The viciousness of the situation which allows the General Contractor to have a bargain sale of sub-contracts as soon as the general contract is awarded to him, regardless of what sub-bids form the basis of his estimate, can not be too strongly characterized. In the first place, it is unfair to the bona fide sub-bidders, and in the last analysis it is detrimental to the owner's interest; for if a sub-contractor cuts his price for the work, it is inevitable that he will cut the work to fit the price just as far as he is able, and, however strict the inspection, its power has a practical limit.

We believe, therefore, that in this connection lies the problem of very great importance, worthy of the careful study of an institute committee, to wit: the architect's duty toward sub-contractors when work is let under a general contract.

In order to bring this matter before the Convention for an expression of an opinion, we offer the following:

Voted, that it is the sense of the members of the Institute here assembled, that when work is let under a general contract, it is the duty of the architect to endeavor so to carry it on that all portions of the work be let under legitimate processes of competitive estimating, to the exclusion of those practices of dickering and trading of sub-bids, which are detrimental alike to the interests of the sub-contractor and the owner.

2d. That contractors should not be called upon to pay for the blue-prints used in estimating. We believe that whenever possible, miscellaneous items such as these should be borne directly by the undertaking involved, and not be transferred to the list of overhead charges of contracts, to be eventually paid by other building operations. Let the owner pay for what he gets and not for what others have got and not paid for.

3d. Responsibility for damage due to use of defective material.

We believe that the contractor can estimate the chances of loss on this as accurately as the material man, and can protect himself by reasonable addition to his estimates to cover labor backed by the guarantees of the material men to replace material.

We recommend that this special committee be continued and that these matters be referred back to it for further consideration and report.

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Graduates With Honors

In June, George Howell Jones, son of T. E. Jones, former architect for the Portland School Board, graduated with honors from the Boston Institute of Technology. He will enter upon the practice of his profession in the East—probably New York City.

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A New Building Stone

Wooden shanties are probably bound to go in the Christmas Lake and Silver Lake Valleys, Oregon. Stone, supplied by either of a half dozen quarries on Table Mountain, are likely to supplant them. F. R. Bass is their rediscoverer. The stone is a queer material, appearing to be a mixture of clay and sand, as though the stone were in process of formation. It has the peculiarity of being readily cut with saws or chisels when first taken out, and can be shaped into blocks of any form desired with but little labor. After exposure the substance hardens and becomes very durable. The quarries are within the Fremont National Forest. Early settlers used the stone to some extent, for fireplaces, chimneys, foundations, etc. Many of these have stood the weather for more than twenty-five years, and are as firm or firmer than ever. Perhaps this stone may become adaptable to wide commercial use in time.

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Offers $500 in Prizes

Dorr E. Keasey, the Portland real estate man, interested particularly in Portland Heights' property, has hung up $500 in prizes that may interest budding architects. He is desirous of obtaining plans for a number of artistic model houses, appropriate for hillside locations. He has detailed the preparation of the program to the Portland Architectural Club. This organization will contribute several plans itself free, and receive $250 for writing the program. The remaining $250 will be apportioned thus: First prize, $125; second, $75; third, $50. Mr. Keasey will hang upon his office walls all plans presented. Out of the several types of dwellings suitable for precipitous sites thus produced, the buyer of a location for a home on Portland Heights is likely to find one that will appeal to his particular fancy. The idea is to get house plans that appear to have been specially designed for a given location, and not those merely designed by chance. Already there are too many dwellings erected that are architectural eye-sores, in that they are entirely incongruous in present surroundings although they might be entirely congruous if placed in other locations.

The Portland atelier members feel much interest in Mr. Keasey's idea. All plans were originally to have been in by July 15th, but the time has been extended into September. Already it is known that twenty-five designs will be forthcoming. The competition will be under the rules prescribed by the American Institute of Architects.

Tacoma's New High School

The enterprising city of Tacoma, Washington, shows prosperity to the extent that the School board has recently commissioned Messrs. Heath & Gove, the well known firm of architects, with headquarters in the National Realty Building, Tacoma, Washington, to prepare plans for an extensive structure known as the Lincoln Park High School. This building, now in course of construction, will cost in the neighborhood of $400,000 and occupies a commanding view on the south side of the city. The building and grounds cover a large block and constitute an extensive basement, first and second floor plans, which details are shown in the illustrated section of this issue. A notable feature of this building is that Messrs. Heath & Gove, architects, are setting an example on the Pacific Coast in the method of laying tin roofing over wood strips or battens, creating an artistic heavy rib design. This institution is to be thoroughly equipped in all departments necessary for instruction in various trades, as the present day demands.

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Victoria Competition

Architects in the city are busy now with their competitive plans for the Provincial Royal Jubilee Hospital, which have to be in by August 1.

As the plans of the directors contemplate a large group of buildings, the competition is receiving the attention of the profession both in Vancouver and Victoria and there is a prospect of a considerable diversity of design in the plans which will be lodged.

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Architects' Fees

The recent decision of a British Columbia magistrate, in effect that an architect cannot claim a mechanic's lien in connection with the preparation of plans for building purposes comes as a complete surprise to architects throughout British Columbia.

Vancouver architects, especially, are considerably chagrined at the outcome. The case on which the issue was decided involved a building which had already been erected. This leaves the situation all the more embarrassing.

Heretofore it has been generally taken for granted that an architect could claim fees under the mechanic's lien act, in common with others identified with the building trades. The magistrate held that quoted decisions tending to support this belief had not involved the claims of an architect for fees, directly based on the action of a lien.

The architectural profession has always felt that the preparation of plans actually used in subsequent construction work has been of equal importance to the furnishing of materials or labor, and that the same measure of legal protection in enforcing payment of fees should be extended.

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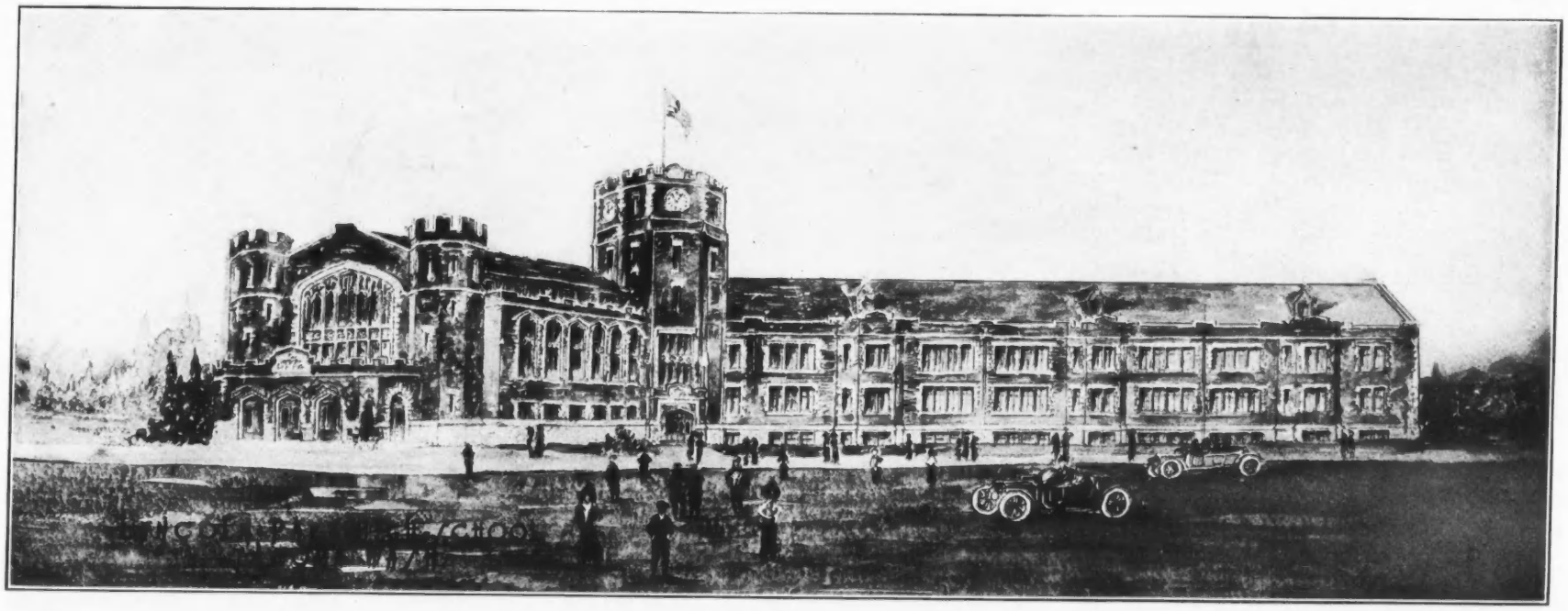
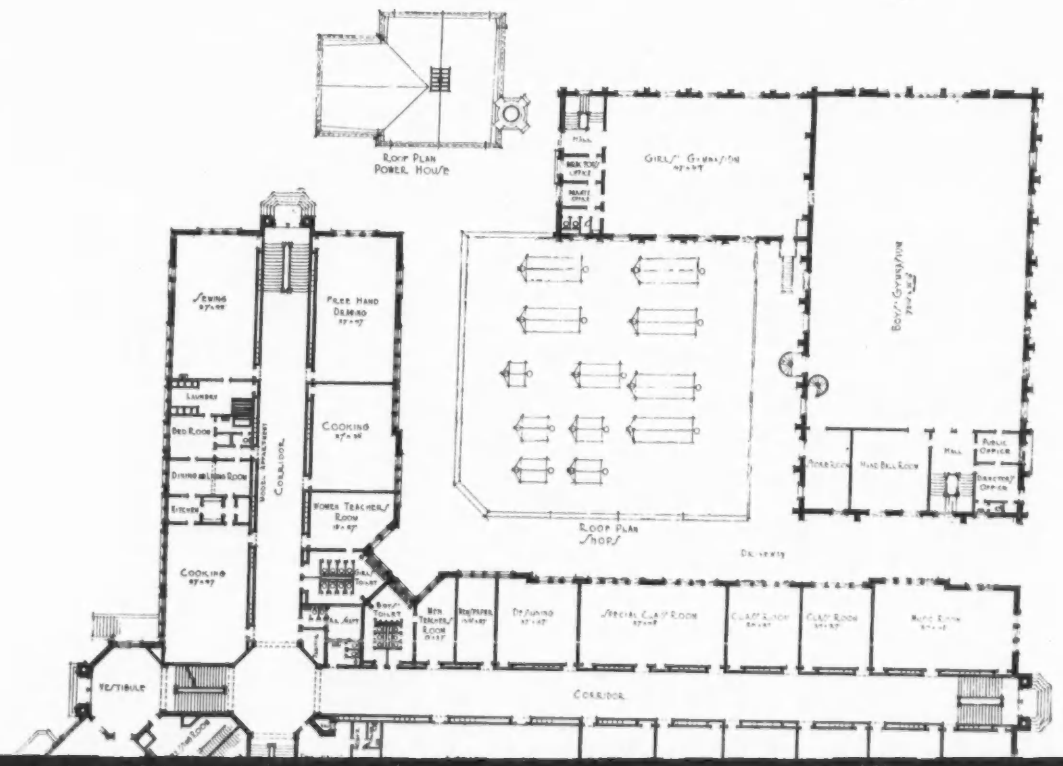
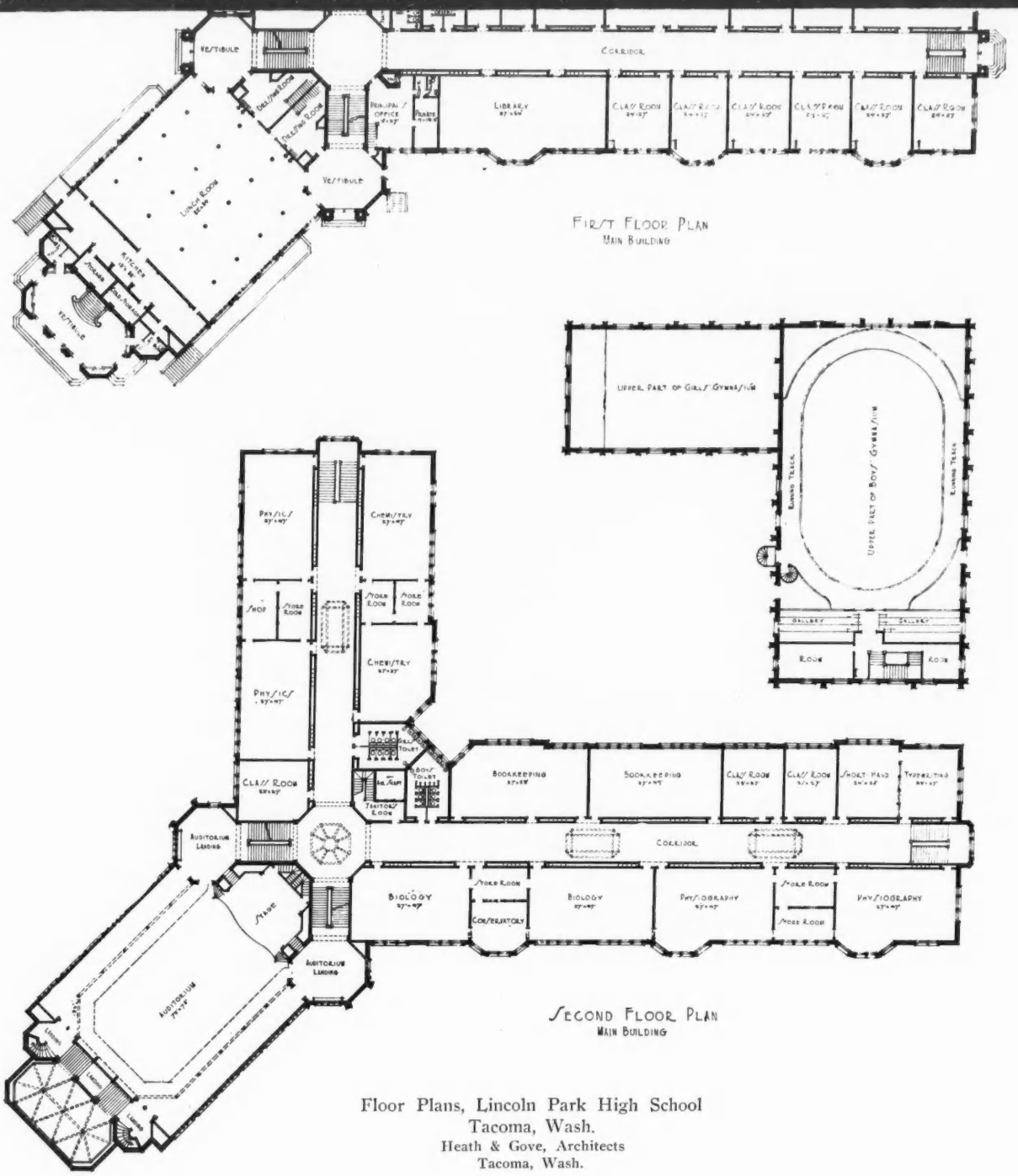
A concrete bowstring roof truss is a feature of the recently constructed Belleville Theater in Paris, France. The truss has a clear span of 69 feet and an overall height of about 15 feet. The top chord approximates a parabola and is connected with the bottom member by six vertical suspenders, spaced about 10 inches on centers. There are no diagonal members to the truss, all provisions for live load being taken up in the transverse connections between trusses.



Perspective, Lincoln Park High School
Tacoma, Wash.
Heath & Gove, Architects
Tacoma, Wash.



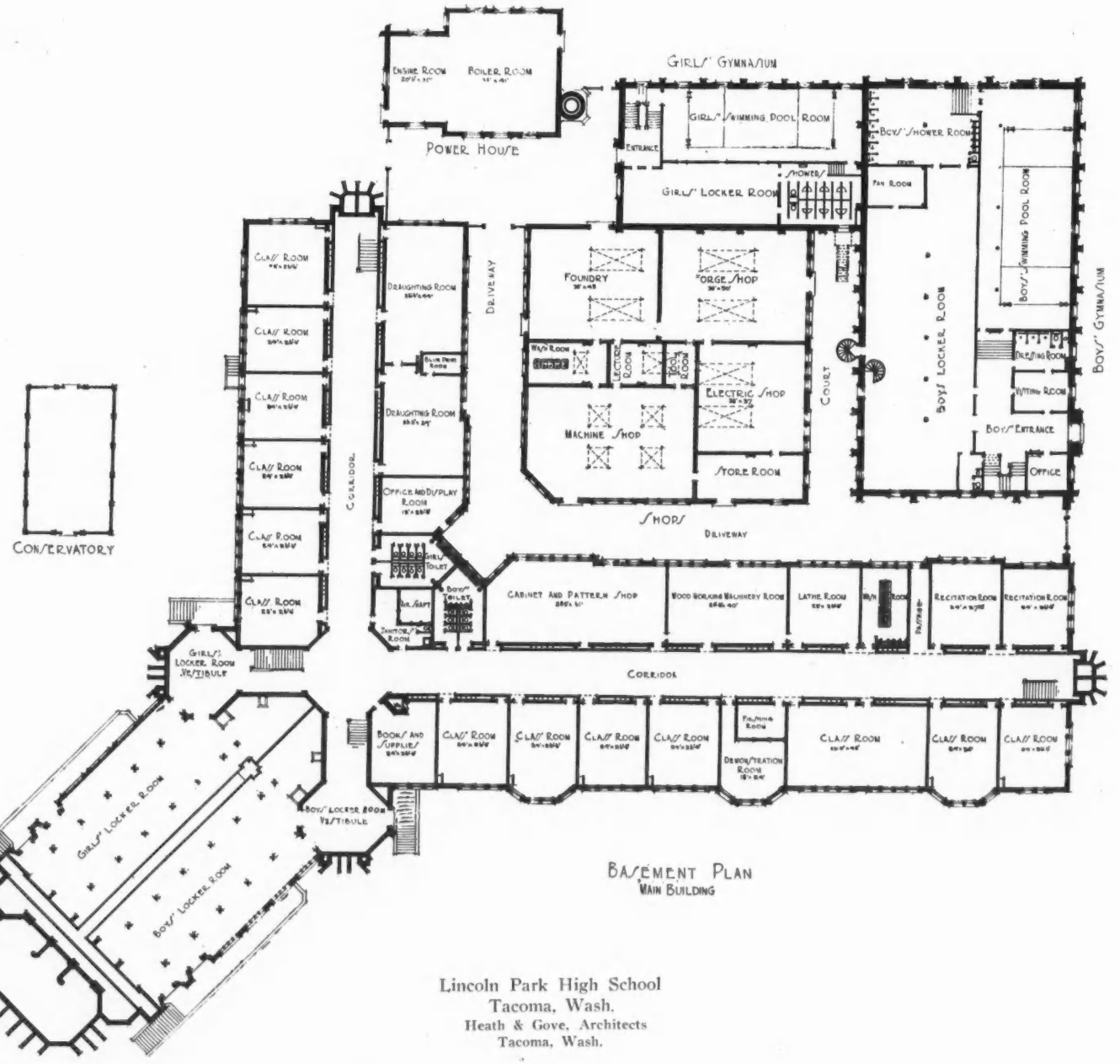


First Floor Plan
Main Building

Second Floor Plan
Main Building

Floor Plans, Lincoln Park High School
Tacoma, Wash.
Heath & Gove, Architects
Tacoma, Wash.

PACIFIC COAST ARCHITECT
August, 1913



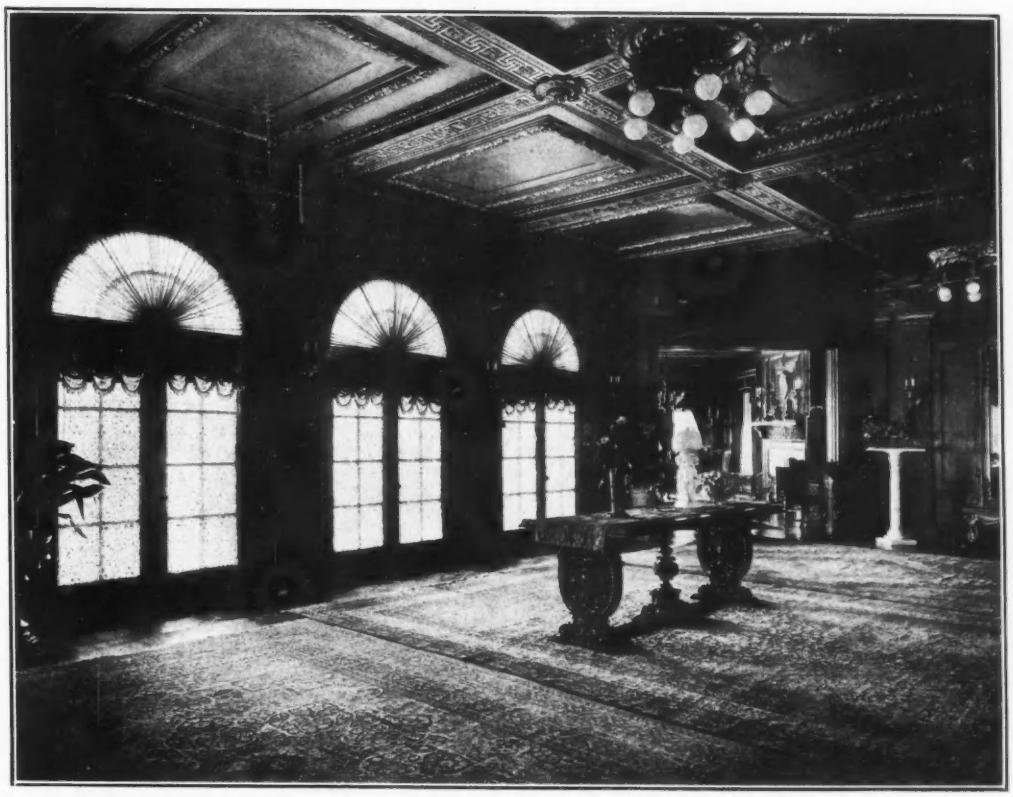
BASEMENT PLAN
MAIN BUILDING

Lincoln Park High School
Tacoma, Wash.
Heath & Gove, Architects
Tacoma, Wash.

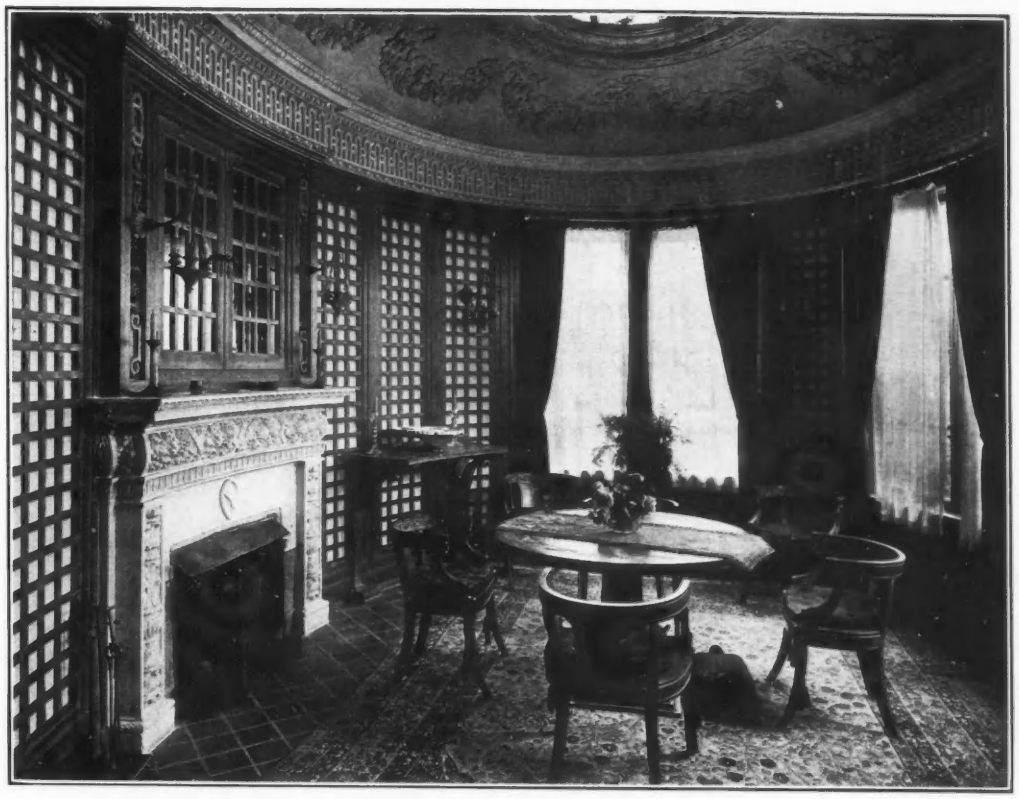
PACIFIC COAST ARCHITECT
August, 1913

Garden Front, Residence H. H. Hart
Oakland, Calif.
C. W. Dickey, Architect
Oakland, Calif.

Reception Hall, Residence H. H. Hart
Oakland, Calif.
C. W. Dickey, Architect
Oakland, Calif.



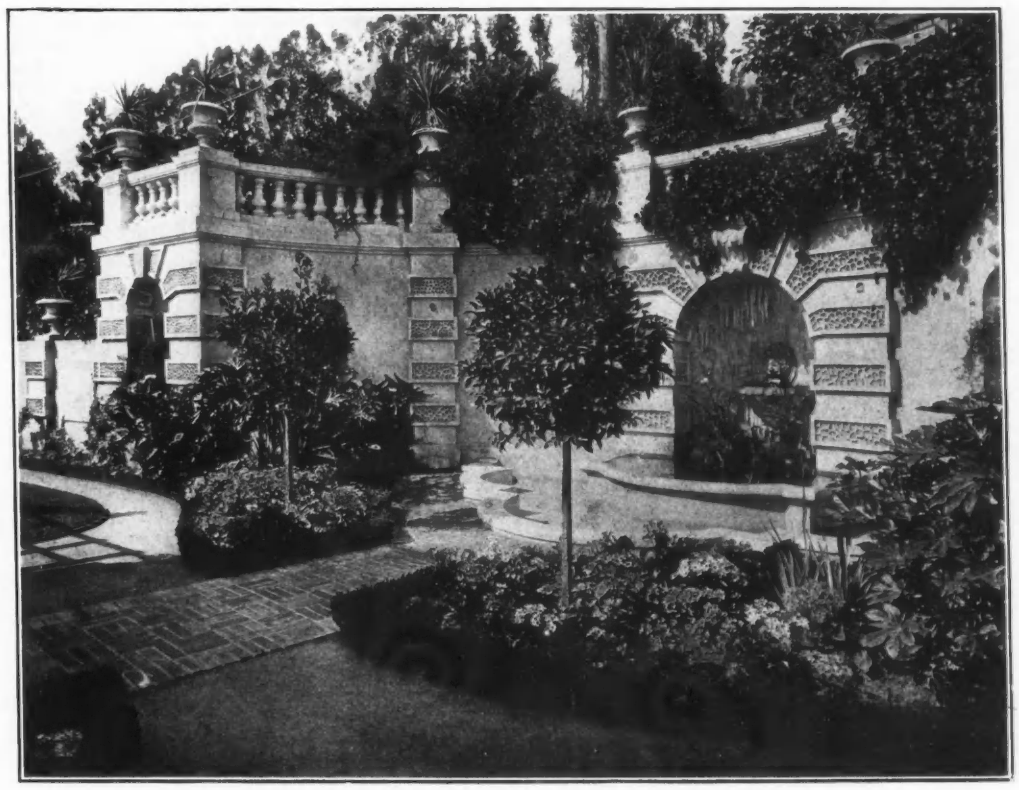
Reception Hall, Residence H. H. Hart
Oakland, Calif.
C. W. Dickey, Architect
Oakland, Calif.



Breakfast Room, Residence H. H. Hart
Oakland, Calif.
C. W. Dickey, Architect
Oakland, Calif.

Dining Room, Residence H. H. Hart
Oakland, Calif.
C. W. Dickey, Architect
Oakland, Calif.

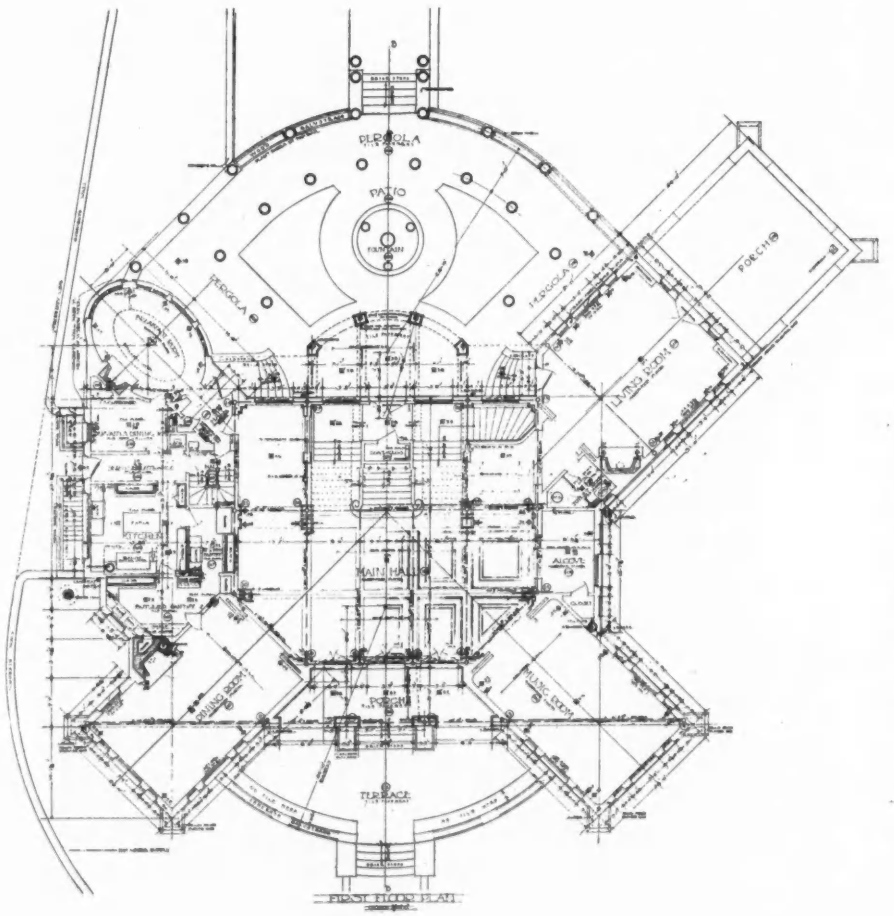
Music Room, Residence H. H. Hart
Oakland, Calif.
C. W. Dickey, Architect
Oakland, Calif.

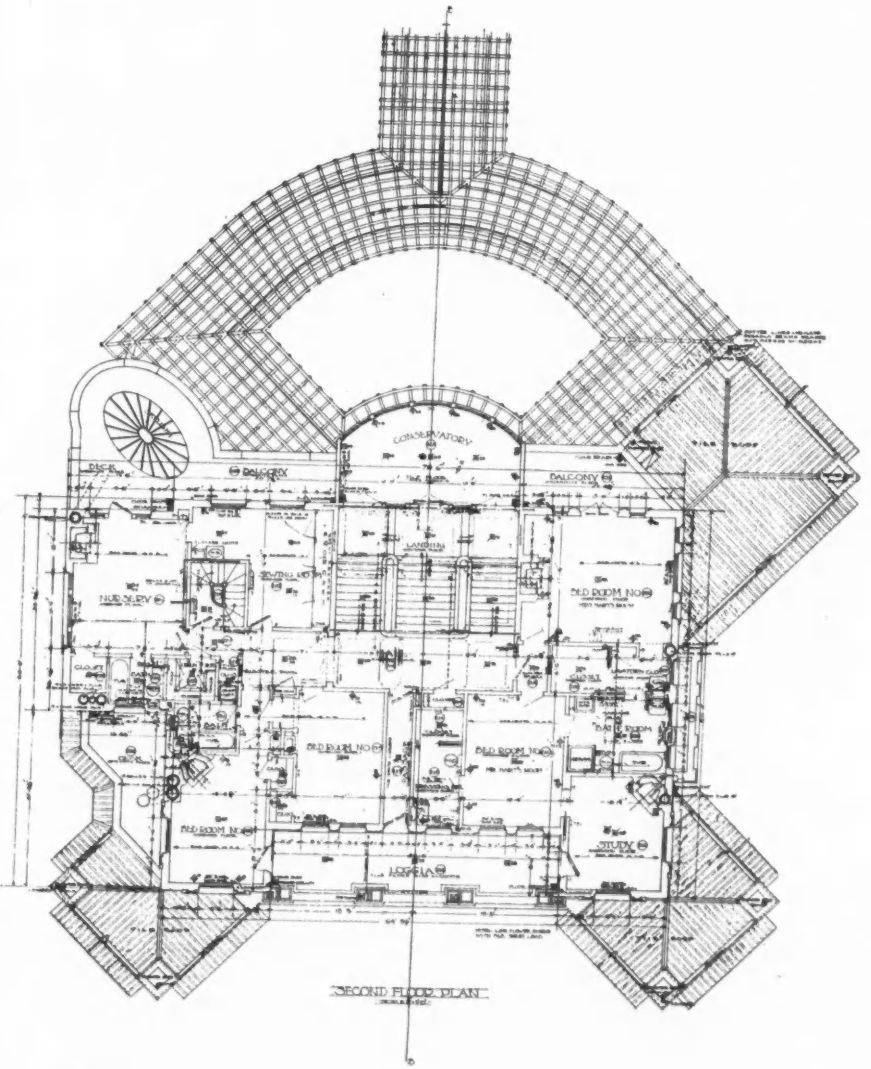


Wall Fountain in Garden, Residence H. H. Hart
Oakland, Calif.
C. W. Dickey, Architect
Oakland, Calif.

Garden Front, Residence H. H. Hart
Oakland, Calif.
C. W. Dickey, Architect
Oakland, Calif.

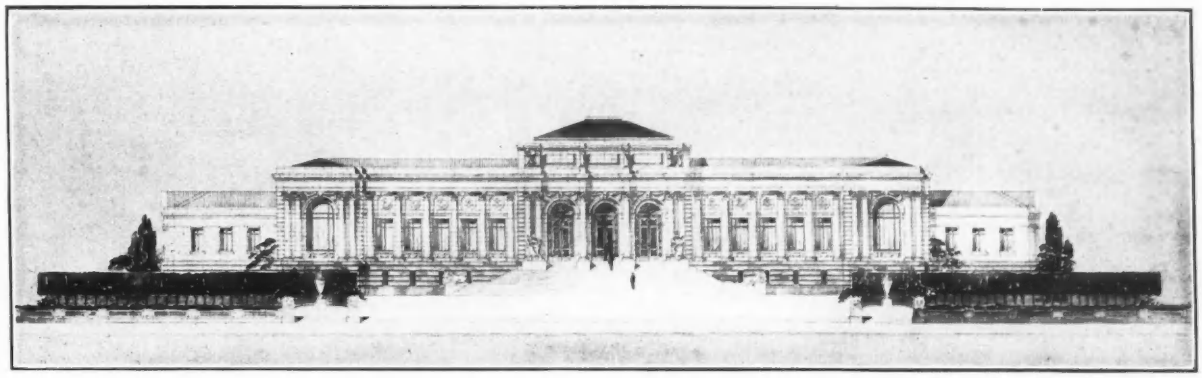
Patio, Residence H. H. Hart
Oakland, Calif.
C. W. Dickey, Architect
Oakland, Calif.

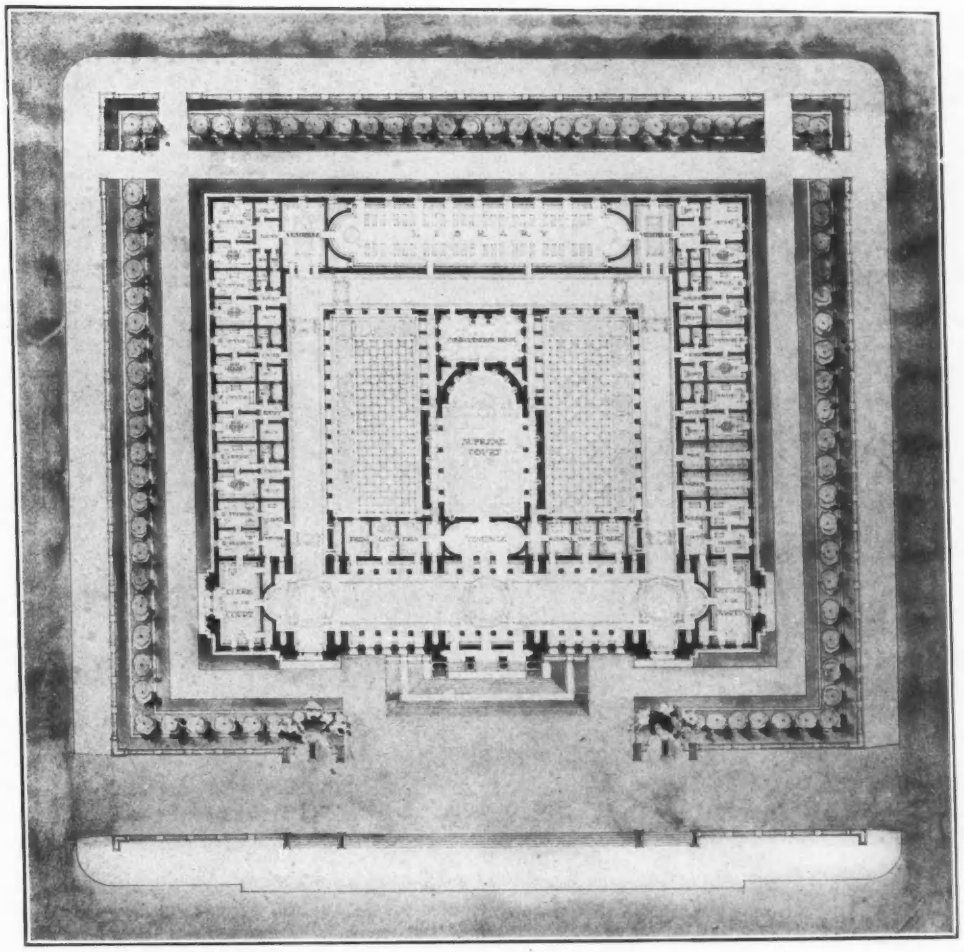




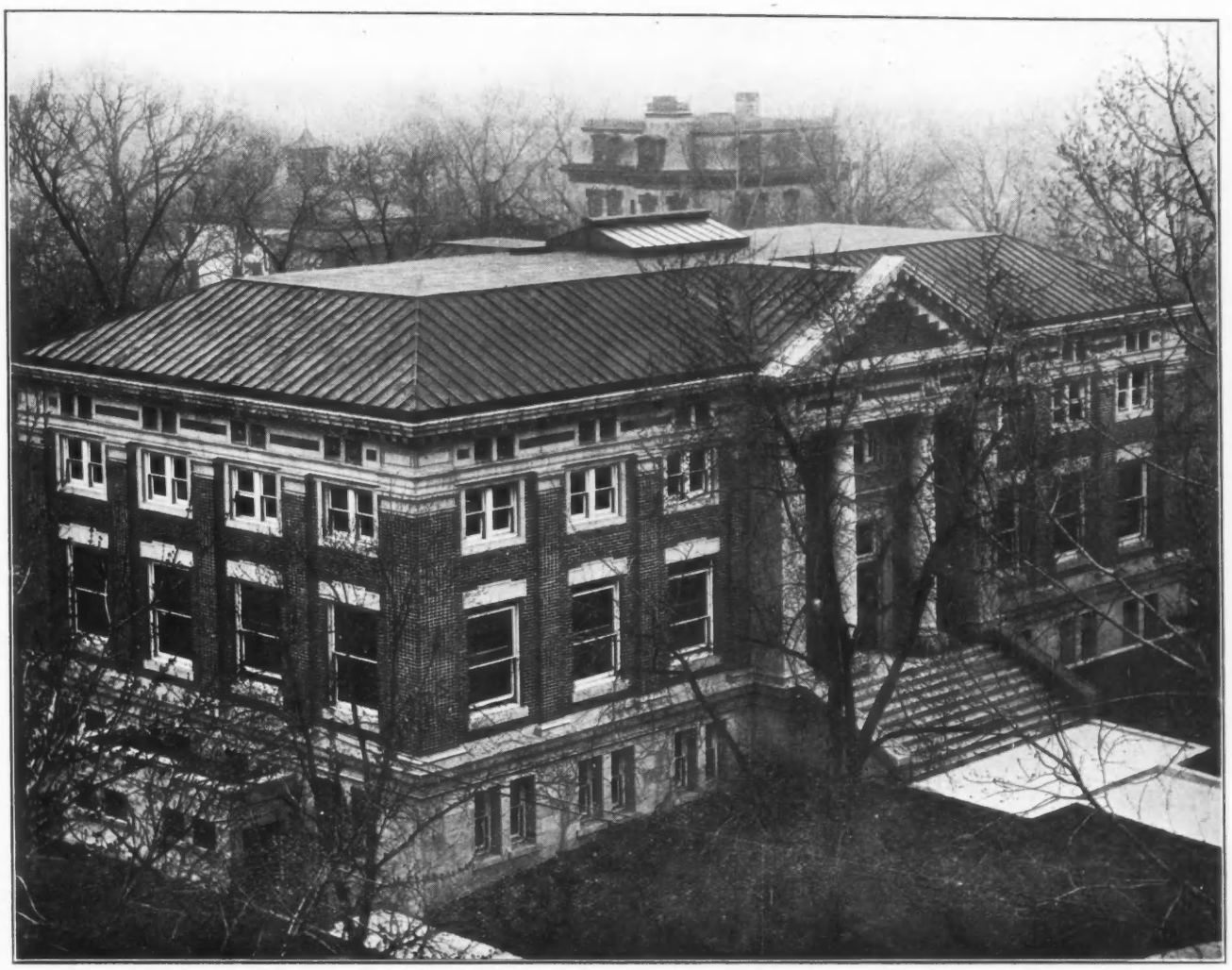
Floor Plans, Residence H. H. Hart
Oakland, Calif.
C. W. Dickey, Architect
Oakland, Calif.

PACIFIC COAST ARCHITECT
August, 1913





Building for the Supreme Court of the United States
Ernest E. Weihe, Placed Fourth, Scholarship Competition
First Mention, S. B. A. A.
Atelier Brown-Bourgeois



CARNEGIE LIBRARY, AT HOWARD UNIVERSITY, WASHINGTON, D. C.
Whitfield & King, Architects, New York City.

A good illustration showing ribbed tin roofing on the building roofed with 7,500 square feet IX "Target & Arrow" roofing tin, manufactured by the N. & G. Taylor Co., Philadelphia.

Showing Details for Ribbed Tin Roofing

By Netcif Rellum.

Fig. 1 shows the plan of the rib and also a vertical section on XX. All the rest of the figures showing end views are sections on similar lines to XX. The vertical section in Fig. 1 shows that the sides of the ribs are fastened to the rib by driving nails through them at the upper end, so that the seam formed by the side and cap will cover the nail heads. The section at "A" shows the cap attached and seams closed and at "B" the seam malleted down and finished.

Fig. 2 shows a similar seam fastened with cleats in which "A" is the finished seam and "B" the seam in process of construction. Here the cleats are fastened to the side of the rib.

Fig. 3 is similar to Fig. 2, excepting the cleats are fastened to the top of the rib. This I regard as the inferior method when comparing Figs. 2 and 3. When the wind causes much suction the tin roof raises and lowers, and in Fig. 3 the point X′ becomes a hinge in the cleat, and in time this raising and lowering, possibly slight, depending on the nearness of the nails to the edge of the rib, will by the law of fatigue of metals cause the tin cleat to break, with the result of then having a loose and unfastened tin roof.

Fig. 4 shows a method of applying a tin roof in which there are no seams on the ribs, but the top and sides of the rib covers are locked to the tin between the ribs in the same manner as in ordinary tin roofing. The drawing shows in detail the procedure, excepting no cleats are shown, or when flat seam is cleated instead of nailed through the sheet. The covering of the rib is temporarily held in place by large nails as shown, which are withdrawn when it has been tacked with solder. In Figs. 1, 2 and 3 the rib must be the size of tin cover, so that the corner can be seamed, or, if not seamed, so that the edge will not pull out of the cap if left as at "D" of Fig. 3. In Fig. 4 the rib shows a beveled side, "N," which does not affect the laying of the roof on the rib covering. Here can be used ribs of various widths and uneven edges.

In Fig. 6 is shown a roof in which ribs and the ordinary standing seam between the ribs are used. It is shown in larger size in Fig. 6, and the standing seam is made finished either ¾″ or 1″ high, depending on the size and height of the rib; and, if nicely proportioned, the rib spaces between, height of standing seam, etc.,

present a good appearance. This style is usually formed in eight-foot lengths in the cornice break, including the first edge on the high side of the seam, and is put together in the same way as the rib cover of Fig. 4.

Fig. 5 shows a rib of indefinite length, or what may be necessary for the work at hand. This rib is fastened to the roof or floor or any smooth flat surface, and the formed covers of Fig. 4 or the formed strips of "tin roofing" of Figs. 5 and 6 are then put together in the required

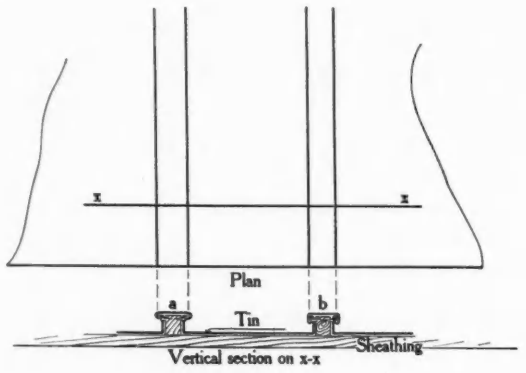


FIG 1.

lengths, using the mentioned rib as a guide. When there are many pieces put together the wood rib at the point where the seams are malleted down (and then soldered

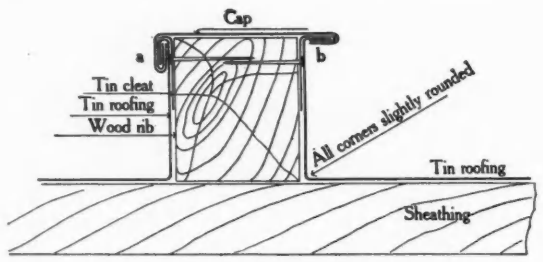


FIG. 2.

before removing) loses its true form. So some way must be devised that will stand this frequent malleting. In Fig. 5 the plan and elevation of the construction rib show one method of reinforcing the rib at the point where the seams would come. The vertical sections Z-Z and Y-Y show the cross section on the plan. The rib is usually screwed down, making it easier to remove without damage to it than when it is nailed. I do not know of any special tool to turn the edges on the sheets, or rather long strips (many sheets), for roofing as shown in Figs. 1, 2 and 3.

Some years ago a manufacturer of steel roofing placed on the market (an Ohio manufacturer—Canton, Ohio, I think) a steel roofing having standing seams made as shown finished at "C" of Fig. 7. The edges on both sides of the sheet were the same height, and a pair of tongs with jaws, as I remember them, similar to "D" of Fig. 7 was used to turn the edges (both at once) as at "A." These edges were then turned down with a mallet and a cap hooked to them as at "B." Then, using the tongs again, the seam was squeezed and finished as

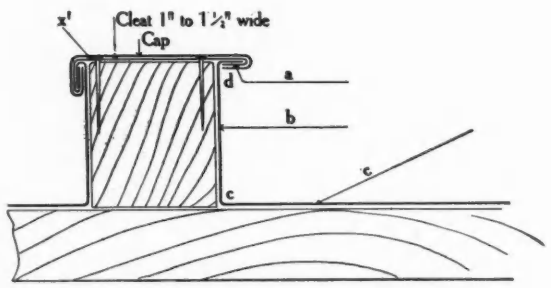


FIG. 3.

at "C." The tongs worked in a manner similar to Burritt Double Seamers, although there was only one tong used and necessary. The exact details I do not remember, which at present is immaterial, excepting that in a roof having ribs we used the same tongs to turn edges for a roof which was, I think, similar to Fig. 2 (edges for Figs. 1 and 3 would be the same). But the jaws were not wide enough, so a piece of sheet metal was soldered to one jaw as at "E," of sufficient height to turn the required edge as at "F," the bend "G," having previously been made with a gutter tong having a gauge. The drawing shows the tong bending the edge "F" when it was used as a steel roofing tong.

At other times the edge "F" was bent by hand as in Fig. 8, where this edge is lettered "A." The letters in Figs. 8 and 9 refer to similar letters in Fig. 3. The bend E′ was turned with the gutter or improvised roofing tongs, and the edge A′ was turned with a block and mallet as shown in Fig. 8 at A″. This edge or corner of the block was faced with sheet iron to keep a sharp corner. A section of the handle is shown at Fig. 10. Any convenient handle would, however, answer the purpose. One end of the cap before it is edged is shown in Fig.

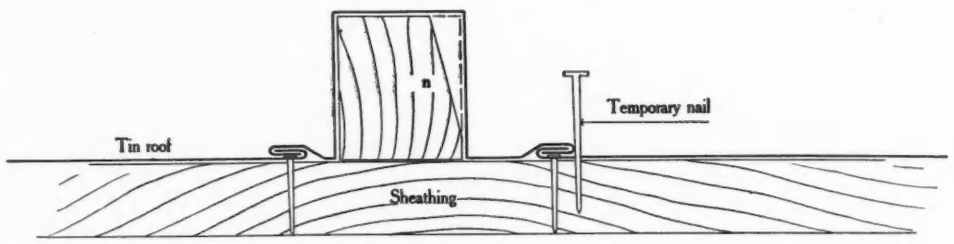


FIG. 4.

11. Both the side and end locks are formed in the folder and then the pieces are locked and soldered together to form strips. They are folded as shown in Fig. 12—E″ being the edge as folded in the folder and E where it is closed. At E′ is shown the opposite edge that is formed slightly more than a right angle, so that it can be slipped over the edges of the sides of the rib covers.

In Fig. 13 is shown a half plan and a part elevation of a dome having ribs. The rib cover is formed in the cornice break in the same way as if it was a straight, and then, if desired, pieces are put together in lengths as required; but short pieces can be handled to better advantage, as they are pretty wobbly when crimped.

Fig. 16 shows the edge of the crimped side. Fig. 17 shows the plan of the rib when it tapers toward the top, being narrower at the top than at the bottom; and it is crimped in the same manner as described and applied in the same way as a rib of even width, now to be explained.

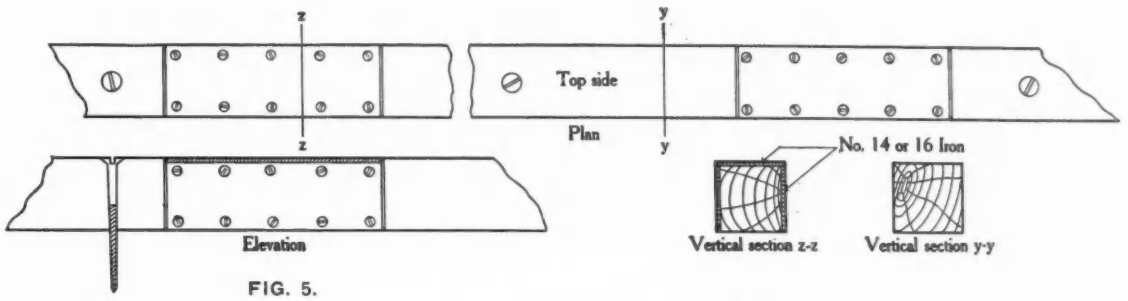


FIG. 5.

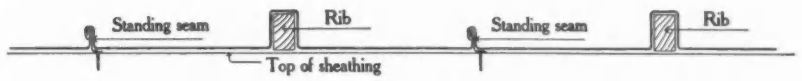
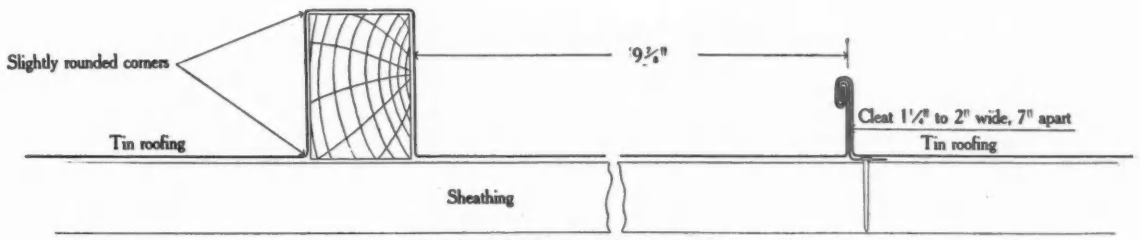


FIG 6.



Full size of Fig. 6 may vary in measurement

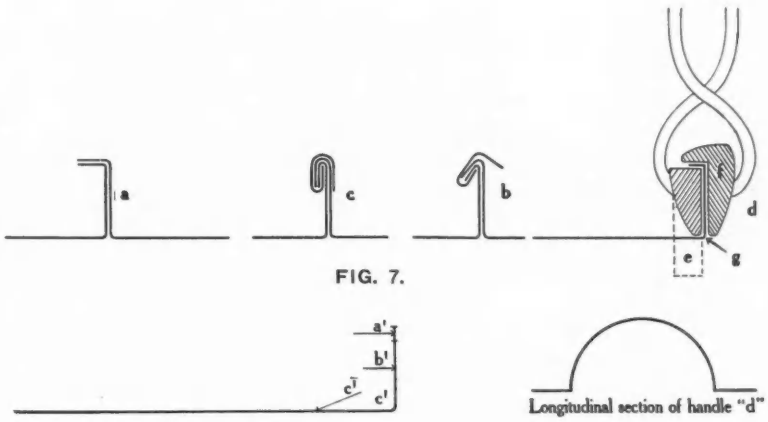


FIG. 7.

FIG. 9.

FIG. 10.

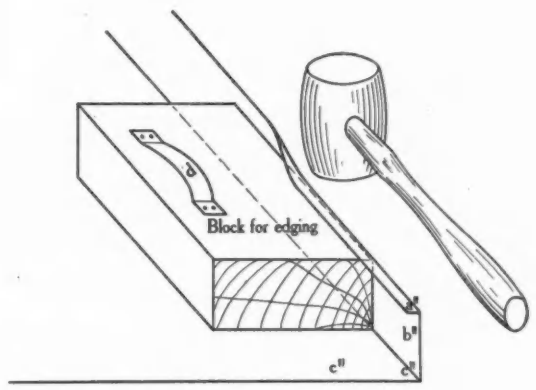


FIG. 8.

The sides are then crimped, just one side a little and then the other, until the rib has somewhat the form of a smaller arc than is necessary, as the rib can be stretched easily, but contracted with difficulty. An edge or lap is then turned out as at X of Fig. 15 with the mallet. In this operation care and some experience are necessary, or the edge will be stretched too much and contain many buckles when the tin is ready to be soldered into place over the rib. Here also at times temporary nails are driven until the cover is firmly tacked with solder.

Fig. 14 shows the full size of the crimping on the rib, but is drawn to such a small radius as to be out of proportion, the smaller domes seldom being of less than a radius of five feet where ribs are used.

Fig. 15 shows the rib made of lath, so that it can be bent to conform to the curvature of the dome. At times the ribs are sawn out of solid material, and again, instead of lath, thin strips wide enough to fill the cover are used. At "H" is shown where the tin between the ribs is nailed to the roof boards, and at "N" where the lap of the cover is soldered to the tin. In this method the expansion and contraction will not affect the seam. When the lath or ribs fill the cover the tin is nailed through the edge "A," in which case "A" is close to the crimped side but not soldered to the lap "X," and is, therefore, provided for contraction and expansion. At "G" is shown a method of nailing the cover to the roof boards and filling in between the ribs and soldering as shown. If the roofing is

not soldered to the nail in the lap there will also be enough expansion and contraction material. The writer has put covers on ribs omitting the lap "X," simply butting the crimped side against the tin roofing and soldering.

Another instance was where a dome was covered with flat locked tin and they later decided to have ribs. The ribs were formed of lath and the side butted against the tin and soldered.

Free Books

O. P. Hoff, State Labor Commissioner, Salem, Ore., has ready for distribution a booklet, "Outline of Labor Laws of Oregon for the Protection of Labor, 1913," that will be mailed free to anyone sending a postal card requesting the same, giving number of copies wanted, name and address.

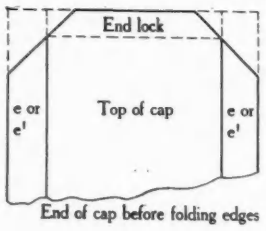


FIG. 11.

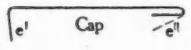


FIG. 12.

FIG. 17.

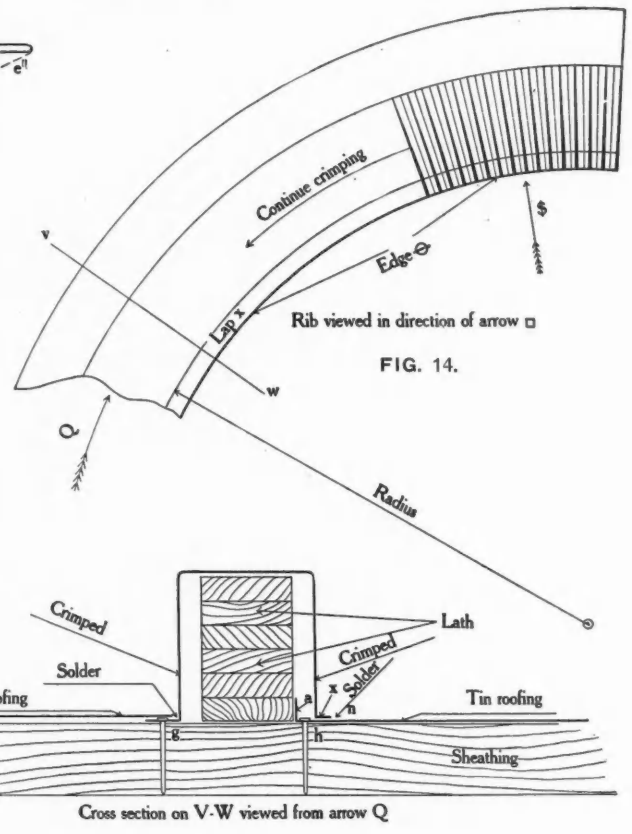


FIG. 14.

FIG. 15.

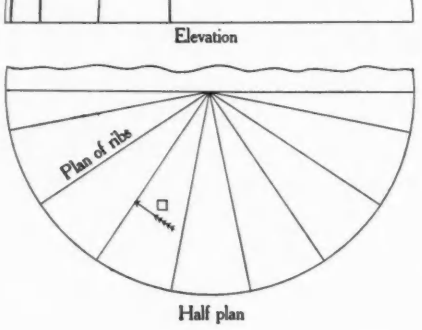


FIG. 13.

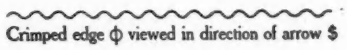


FIG. 16.

Greatest User of Asbestos

If the United States cannot boast of preeminence in asbestos production, as it can for many other minerals, it is at least a matter of some gratification to know that the bulk of the world's production comes from America and that the Canadian deposits yield by far the larger part of the total. In this, too, the United States benefits, for the nearness and reliability of the Canadian supply, largely owned in the United States, affords the basis of our eventual unquestioned supremacy in the development of asbestos manufactures. Even as it is, there are, according to J. S. Diller of the United States Geological Survey, some valuable deposits and promising prospects in the United States, and these would undoubtedly be much more largely developed were it not for the extent of the Canadian deposits. The domestic production in 1912, according to Mr. Diller, was 4,403 short tons, valued at $87,959, and although this was a decline of 42 per cent in tonnage compared with the output for 1911 it was only 27 per cent less in value, owing to the larger quantity of higher grade asbestos in 1912. Georgia, Vermont and Wyoming are the three States which mine asbestos. The Canadian exports of asbestos in 1912 amounted to 88,008 tons, of which 71,426 tons, or more than 81 per cent, was imported into the United States. This quantity was 67 per cent of the entire Canadian production.

Asbestos is the most important fire-proofing material known. Its fibrous structure adapts it to a wide range of applications—from woven fabrics, such as theatre curtains and articles of clothing, to asbestos shingles, stucco, plaster, asbestos "wood," and various other forms of building material that render structures thoroughly fireproof. Its lightness, strength, durability and insulating properties against heat and electricity give it special advantages for use in constructing cars and electric motor subways.

The most common uses of asbestos are for asbestos paper, millboard, pipe covering and lagging to inclose heat pipes, furnaces and locomotives in order to prevent loss of heat in transmission. As a non-conductor of heat it may be used not only in the preparation of fireproof safes and vaults, but also for cold storage and cooling structures. Houses made of asbestos materials or coated with asbestos throughout are not only warmer in winter, but cooler in summer.

Canadian Government Architect to Visit British Columbia

Chief Architect Ewart, of the public works department, Ottawa, has left for a trip of official inspection which will take him across Canada. Mr. Ewart will go to Vancouver and return. He will stop at all places where important public works are in progress and look them over.

The chief architect will be away probably for a month or more, and will spend some time for the benefit of his health, as well as attending to his duties.

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New State Architect

George B. McDougall, junior member of the well-known San Francisco firm of architects, has been appointed to the position of state architect, to succeed John W. Wollett, who has resigned. Mr. McDougall has contributed to the architecture of San Francisco many buildings, among which is the Young Men's Christian Association building. This, together with the firm's work for the University of California and the vast amount of commercial work credited to them, has given the new State Architect a wide experience which well fits him for the position of responsibility to which he has been appointed.

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A Draftsman's Details

O what a life
The draftsman leads
  In this old world today;
He draws his plans,
He draws his breath,
  He also draws his pay.
His weary hours
Are long drawn out,
  While waiting for a "raise";
His wrinkled brow
Is drawn down more,
  No increase meets his gaze.
He fills his pen,
Then draws a line,
  And mutters, "Things ain't square;
I think I'll chuck
This bloomin' job
  For one with more fresh air.
I glue my nose
Down to my board
  The bloomin' live-long day;
The bloomin' boss
Is standing near
  To see I earn my pay!
The boss, he thinks
I ought to know
  All things from A to Z,
And still be glad
To work for him
  At what he now pays me.
This drafting life
Is 'on the Fritz,'
  It surely makes me sore!"
He "beats it" home
But in the morn
  He comes right back for more.

—A. T. N. in Engineering News.

Effective Brick Work

Considered from the point of view of beauty brick would seem to occupy a unique position among the structural materials available for the creation of beautiful buildings. Further analysis discloses, among others, the following interesting points:

Brick is made in reasonable small units, so that in the case of many modern buildings, at least 100,000 of them show on the exterior. This, together with the varying shapes and sizes obtainable, make possible an almost infinite variety of form and pattern, thus giving full scope to the imagination, ingenuity and skill both of the designer and the workman.

Brick, moreover, is now made in almost every conceivable color and shade, the permanency of which is unequaled by hardly any other building material; with such a "palette," therefore, at one's command, and by a skilful use of color, the brick builder of today can readily add to his design that living touch which the painter gives us in his painting.

Brick may also be counted unique in the fact that it requires for its structural efficiency the use of a very considerable amount of material of quite another kind and color, namely, mortar; and, further, that this material must of necessity show in the form of a joint to a more or less degree in the face of the finished wall. A mistaken idea has prevailed that the mortar point is a blemish that should be suppressed as far as possible, or be colored to match the brick. We find, however, that the designer of today seizes the very opportunity afforded by a mortar joint to introduce into his wall another element of color and pattern.

The word "texture" has lately come into use in connection with brickwork, and, strange to say, this word has a very plausible application, for the builder of interesting brick work has much in common with the weaver at the loom as far as resulting color effect goes. Just as the weaver, with his threads of varying sizes and colors, produces a never-ending variety of useful and beautiful fabrics, just so it is possible for the brick builder, with his bricks and joints of many colors and sizes, to weave new ideas and combinations in his work, all in beautiful and imperishable patterns; and this applies to all brick.

Just as the fabric charms and delights the eye, and at the same time protects men from heat and cold, and performs a thousand other useful functions, so the beautiful way of brick, exemplifying man's ingenuity and his artistic skill, forms also the protective structure of the buildings erected for his use. Brick, therefore, would seem to fulfill to a very high degree the requirements of an ideal architectural material.

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High Cost of Building

Nothing is more uncertain than the future, yet it is a human weakness to expect unfavorable existing conditions to change for the better. Nowhere can this be applied more appropriately than in the present condition of the high cost of building. Owners, architects, contractors and all others interested in building are forever looking toward the future for better building conditions, but these conditions seem as illusive as the quest of the horizon.

Every season brings new disappointments; instead of a drop in the cost of material and labor—the main factors in building—they are continually rising. Owners who have been awaiting the time when they can build cheaper have still a long wait before them, if we judge the times aright. The building public is in the clutches

of both corporations who have the control over material, and unions who control labor. As long as there will be an increased demand for material the cost will also increase. Within the last fifteen years some materials have tripled in cost! Labor, on the other hand, is a great source of worry. Contractors admit their fears in giving estimates, as they are continually facing probable loss. True, some trades are being underpaid in proportion to others, yet many a workman is receiving a salary far above his worth. No one, of course, begrudges the wages, no matter how much, of the honest, skillful and industrious workman.

However, enumerating these causes does not remedy matters. There are as yet no signs of checking these corporations, nor of correcting the abuses in unions. It, therefore, behooves the building public to cope with the present conditions, forgetting the past and the future and aim to overcome all obstacles in building by calling forth greater skill on the part of the architect and builder and a little self-denial on the part of the owner. Hence, it is not advisable to wait for the uncertain future. Build now. Build within the limit even if it does mean curbing some pet scheme. And last, but not least, employ only the most skillful men of the various trades (who are the cheapest) and much will be done to help forget that material and labor are the principal causes of the present high cost of building.

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National Tube Company, Pittsburg, Pa., desire to announce that commencing August 1, 1913, they will enter the electric conduit field. Having contracted with the National Metal Molding Company and the Safety-Armorite Conduit Company, both of Pittsburg, Pa., to manufacture and sell this product for us as our agents, under their various brands. We have decided to sell this product on the "Pittsburg Basing Discount" plan in the same manner as all wrought pipe for other purposes has been sold for the past thirteen years.

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Newspapers for Walls

The Chinese are the greatest consumers of old newspapers in the world. The official returns to the custom house at Newchwang state that that port alone in 1911 received 1918 tons of old European newspapers valued at £14,500.

It is not at first easy to discover to what use so much obsolete news can be put. However, we gather that the middle class Chinese prefer newspaper to the native variety as a covering for their walls. It has a greater power of resistance and affords a more effective barrier to the invasion of the vermin that plague Chinese houses.

Moreover, the natives are experts at cutting out of the newspapers waistcoats which they wear next to the skin. These paper waistcoats are said to be the best possible protection against a sudden cold snap. In view of these admirable uses to which European newspapers may be put it is not surprising to learn that the imports of 1911 show a considerable increase in weight.

The value of the import has, however, declined. It is interesting to note the reason for this decline. It is explained by the rapid development of the native newspaper press which has taken place during the last few years. Chinese newspapers are now printed for the most part on paper imported from the United States, so that instead of paying high prices for imported newspapers the Chinese of the interior use the "returns" of the native press for their walls and their waistcoats.—National (Shanghai) Review.

A New Line of Varnishes

W. P. Fuller & Co. intend to place upon the market in the near future a complete line of house and cabinet varnishes of their own manufacture. Based, as they are, on exhaustive tests covering a period of years, these varnishes represent the highest standard of excellence.

A new building has just been erected for the sole purpose of caring for this new line.

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Signs of the Times

There was a time—and we have by no means outgrown its effects even yet—when reformatory institutions for wayward youth were expressed only in massive buildings. They were cold, grim, forbidding. A new order is evolving. Instead of vast piles, they are being broken up into units instead of one large structure, gloomy and disquieting, numbers of smaller buildings are becoming the order of the day. These remove occupants from the institutional idea, and give, in its stead, a very fair imitation of a real home.

In Portland an adaptation of this idea is being made in the Fire Department. Instead of a stiff, staid, comfortless place in which the firemen are housed, in one instance, at least, there has been made a refreshing change. A homelike appearing bungalow has been substituted. It serves its purpose well, and should be more generally adopted, especially in the outlying districts where it is perfectly practicable.

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Keying an Ad

Keying an "ad" and paying a clerk to keep tab on "inquiries" is good business in a ten-cent mail-order proposition, but doesn't work out on anything bigger. We know a wall-board man who got 480 inquiries from a farm journal "ad," sent out a stack of catalogues and booklets, chased follow-up letters out in one-two-three order and has yet to sell a single foot of the board to any of the idle curious who answered his advertising. The same manufacturer got but two inquiries out of an "ad" in a building magazine, but sold both parties.—The Builders' Guide, Philadelphia.

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Issues Portfolio for Architects

The Dahlstrom Metallic Door Company, Jamestown, N. Y., have just started to distribute to the architectural profession and others interested a portfolio of architectural details of hollow metal door and trim construction.

The value of steel interior finish for high-class buildings is being more and more appreciated by architects, builders, owners and managers. Extended information regarding the best practice in hollow metal door and trim construction and its adaptability to varying designs, conditions and requirements is therefore timely and will serve a useful purpose.

The original drawings for these plates were made by men in their own organization, under the supervision of their Mr. Harry Wilson, and additional plates will be issued from time to time to show new developments in the art.

The portfolio will be sold to parties other than practising architects at $5 each.

Industrial Publications

A halftone of the George H. Long residence at Steilacoom Lake, Wash., forms the cover illustration for the August issue of "Roofing Tin," published by the N. & G. Taylor Co., Philadelphia. This residence is roofed with I. C. 28x20 "Target & Arrow" roofing tin, manufactured by the N. & G. Taylor Co., Philadelphia. The sheet metal work is done by the Ed Miller Cornice and Roofing Company, Tacoma, Wash.

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Spokane Firm Gets Big Contract

Competing with big firms from different Western cities, the Spokane Ornamental Iron and Wire Works Company has secured the contract for the ornamental iron and bronze in the new skyscraper being built by the Pacific States Telephone Company in Portland, Ore. In getting this contract, approximating $40,000, for iron and bronze, they bid against big firms in San Francisco, Chicago, Minneapolis and Seattle. Another contract that came to them, and of which they are proud, is the new Vancouver Club, in Vancouver, B. C. This work is being installed. Still another contract, showing the scope of territory they are covering, is for the new First National Bank Building in Great Falls, Mont. This firm is going after business throughout the entire Northwest, and is getting it.

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Trade Notes

Architect W. R. B. Wilcox of Seattle was a recent visitor in San Francisco.

Victor S. Person, with L. A. Norris & Co., has returned from spending a two weeks' vacation at Lake Tahoe.

Mr. Hoas, with L. A. Norris & Co., has returned from an extensive trip to the Twin Cities.

N. W. Thurston, of Lilley & Thurston, has returned from an extended motor trip to Southern California.

Architects Horel & Roberts, Vancouver, B. C., have moved from the Dominion Building to suite 901-902 Welton Building.

Architect T. R. Kimball of Omaha has returned home after spending several days in San Francisco.

Architect B. Lubschez of Seattle has returned home after spending several days in San Francisco on business.

Architect George W. Kelharm, with offices in the Sharon Building, has returned from his vacation spent at Lake Tahoe.

Architect Harry W. Hewitt, Los Angeles, is now associated with A. P. Dennis, with offices at 618-620 Fay Building.

Architect S. Tilden Norton of Los Angeles is on an extended vacation, which he will spend in Alaska, going as far north as Skagway.

The Simplex Window Company have moved from the Crocker Building to the Underwood Building, 525 Market street.

Architect Chester H. Miller, with offices in the Foxcroft Building, San Francisco, has opened an Oakland office at 315 Pantages Building.

W. E. Dennison, president and manager of the Steiger Terra Cotta and Pottery Works, has returned from a hunting trip to Sierra City.

T. G. Arrowsmith, representing the Hoffman Heater Company of Lorain, Ohio, is on an extended trip through Southern California.

Alto H. Mohr, president of the Mohrlite Company, 249 Minna street, San Francisco, has returned from an extended business trip to the Eastern States.

The Watson Mantel and Tile Company, 457 Market street, San Francisco, have received their new fall catalogue and price list from the printer and are sending it to the trade.

The National Architectural and Engineering Company, Inc., have moved their offices from the Foxcroft Building to 604 First National Bank Building.

Architect Harvey Partridge Smith, with offices at 232 Blake Block, Oakland, California, is on an extended trip to Chicago, going by Minneapolis, returning via San Antonio, Texas.

Leonard H. Ford has opened an architectural office at 2136 Center street, Berkeley, and would like samples and catalogues from material houses.

E. H. Bellows, manager of the Pacific Wall Bed Manufacturing Company, Bankers' Investment Building, has returned from an extended trip to the Eastern States in the interest of the wall bed business.

Mr. Lilley, of Lilley & Thurston, dealers in building materials, has returned from a month's trip spent in the East, visiting the different factories that they represent on the Pacific Coast.

R. N. Nason, of R. N. Nason & Co., the well known paint house, is on an extended tour of the Eastern States. Mr. Nason will return via Winnipeg and Vancouver, B. C.

A. Gehri & Co., Tacoma, Wash., have the contract for the sheet metal and plumbing on the Lincoln Park High School at Tacoma. Heath & Gove, architects.

Architects Heath & Gove, Tacoma, Wash., have awarded the general contract on the Lincoln Park High School to Olson & Young, general contractors, Tacoma, Wash.

Architects Wright & Rushforth, with offices 571 California street, announce that they have moved their Vancouver, B. C., offices from 709 Dunsmuir street to 411 Pacific Building, same city.

Architects Sweatt, Levesque & Co., Spokane, announce that they have opened a branch office at Great Falls, Mont. The manager of the new office would like catalogues and samples from material houses.

Architect Elmore R. Jeffery, Los Angeles, Cal., is on an extended business and pleasure trip to the East. He will visit Minneapolis, Chicago, Milwaukee and other cities, returning via the Canadian Pacific route and stopping at Vancouver and other Coast cities.

Architects Paul V. Tuttle and E. L. Hopkins, Los Angeles, Cal., have dissolved partnership by mutual consent. Mr. Hopkns will retain the office at 616 Delta Building and Mr. Tuttle has opened offices at 619 Delta Building. Catalogues and samples from dealers will be appreciated.

T. G. Arrowsmith, Pacific Coast sales manager for the Hoffman Heater Company of Lorain, Ohio, has made connections with Holbrook, Merrill & Stetson to handle the Hoffman Heater in California, having just closed an order with his firm for a carload of heaters, which consists of the full line, the same to be equipped with the very latest device thermostat controling the flow of gas direct with the water valve, eliminating all heater trouble such as other heating companies have to contend with.

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CALIFORNIA

Apartment House—Architects C. M. and Arthur Rousseau, Monadnock Building, have prepared plans and working drawings for an eight-story and basement reinforced concrete apartment building for the Portola Realty Company. The cost will be $90,000.

Machine Shop—Architects Welsh & Carey, Merchants National Bank Building, have prepared plans for a one-story building for Thomas Ford, to cost $5,000.

Power Station—Architect Frederick H. Meyer, Bankers' Investment Building, has prepared plans for a one and a half-story power

station for the San Francisco Gas and Electric Company, to cost $30,000.

Hospital—Architect Thomas O'Connor, San Rafael, Cal., has prepared plans for a two-story brick and reinforced concrete building, to cost $45,000.

Theatre—Sacramento. Architect A. W. Cornelius, San Francisco, has prepared plans for a vaudeville theatre building for Turner & Dahnken, to cost $75,000.

Store and Loft Building—Architects Julius Krafft & Son, Phelan Building, have prepared plans for a two-story and basement store and loft building for A. J. Donzel, to cost $10,000.

Apartment House—Architect Arthur Scholtz, Phelan Building, has prepared plans for a three-story and basement frame and plaster apartment house for A. Merten, to cost $12,000.

Synagogue—Oakland. Architect G. A. Lansburgh, Gunst Building, has prepared plans for the new temple for the First Hebrew Congregation, Oakland, Cal.

Town Hall—Burlingame. Architect Charles Peter Weeks, Mutual Savings Bank Building, has prepared plans and specifications for the new town hall to be erected at Burlingame, to cost $20,000.

Residence—Oakland. Architect C. W. McCall, Central Bank Building, Oakland, Cal., has prepared plans for a two-story and basement frame and plaster residence for A. E. Grimmwood, to cost $5,000.

Hotel Building—Architect William Wilde, Albany Building, Oakland, has prepared plans for a six-story brick and steel hotel building to be built at the corner of Eleventh and Franklin streets, Oakland, for Charles Street, to cost $60,000.

Office Building—Architects Willis Polk & Co., Merchants Exchange Building, have prepared plans for a ten-story addition to the Mills Building for D. O. Mills, to cost $500,000.

Hotel Building—Architects Fabre & Bearwald, Merchants National Bank Building, have prepared plans for a five-story steel and frame concrete building to be built at Seventh and Stevenson streets for Vayssie Brothers, to cost $60,000.

Parish House—Oakland. Architect William A. Newman, Hughes Building, San Francisco, has prepared plans for a one-story frame and plaster parish house to be built on Shafter and College avenue, Oakland, for the Olivet Congregational Church, to cost $6,500.

Catholic Church—Dixon, Solano county. The parishioners of the St. Peters Catholic Church are making plans for the erection of a new church edifice to cost $25,000 or more.

Lodge Building—Architect William D. Shea, Marsden Building, has prepared plans for a Class A lodge and library building to be built on the north side of Oak street, west of Van Ness avenue, for the Young Men's Institute, to cost $160,000.

Store Building—Architect William H. Crim Jr., 425 Kearny street, is preparing plans for a one-story and basement brick store building on the south side of Sutter, between Market and Post, for Florence N. Ward, to cost $12,500.

County Jail—Santa Rosa. Architect J. W. Dolliver, San Francisco, has plans accepted for the new county jail to be built of reinforced concrete.

Loft Building—Los Angeles. Architects John C. Austen and W. G. Pennell, 1015 Wright & Callander Building, Los Angeles, have prepared plans for a thirteen-story and basement Class A loft building to be of steel frame and brick construction, built for the Mason estate.

Hospital Building—Los Angeles. Architects Garrett & Farell, 405 Currier Building, have prepared plans for a new hospital building to be erected at the corner of College and Gastellar streets for the French Hospital Association. The building will be of reinforced concrete construction, to cost $50,000.

Apartment House—Architects Righetti & Headman, Phelan Building, have prepared plans for a three-story frame and basement apartment building to be built at the corner of Green and Montgomery streets, San Francisco, for C. Favilla, to cost $12,000.

Residence—Oakland. Architect John H. Thomas, First National Bank Building, Berkeley, has prepared plans for a two-story and basement frame and plaster residence to cost $6,000.

Elks' Building—Berkeley. Architect W. H. Ratcliff, First National Bank Building, Berkeley, has prepared plans for a three-story and basement building to be constructed of reinforced concrete, to cost $120,000.

Packing Plant—Sacramento. Architects Seadler & Hoan, Forum Building, Sacramento, have prepared plans for a $50,000 packing plant to be erected for Swanston & Son on the American river, north of Sacramento.

Infirmary Building—San Rafael. Architect Thomas O'Connor has prepared plans for a two-story and basement brick and steel building to be built at San Rafael, to cost $40,000.

Bank Building—San Diego. Architect T. C. Kistner has been commissioned to prepare plans for a six-story fireproof structure to be built on the west side of Third street for the Southern Title Guarantee Company, to cost $125,000.

Apartment House—Fresno. Architect J. D. Statham is planning an $80,000 apartment house at the corner of Mariposa and A streets, work to commence at once.

Hotel Building—Architects Ross & Burgren, 310 California street, have prepared plans for a five-story Class C building to contain 60 rooms, to cost $40,000.

Residence—Mountain View. Architect John Bauer, Clunie Building, San Francisco, has prepared plans for a two-story and basement frame and plaster country residence for Mrs. Bowman, to cost $6,500.

Apartment House—Architects Falsh & Knoll, Hearst Building, are preparing plans for a six-story and basement Class C apartment house on Sutter street, between Jones and Leavenworth, for J. H. Hyul, to cost $125,000.

Residence—Alameda. Architect Leonard H. Ford, 2136 Center street, Berkeley, has prepared plans for a two-story frame residence to be erected in Water Side Terrace, Alameda, for W. D. Howe.

Garage—Architect Fred H. Meyer, Bankers Investment Building, San Francisco, has prepared plans for a reinforced concrete garage and automobile sales building on Van Ness avenue, between Geary and Post streets, to cost $100,000.

Power Station—Architect Frederick H. Meyer, Bankers Investment Building, San Francisco, has prepared plans for a 50x75-foot steel and frame power station for the San Francisco Gas & Electric Co., to cost $30,000.

Residence—Architect D. C. Coleman, Merchants National Bank Building, is preparing plans for a two-story and basement brick veneer residence to be erected on Vallejo street west of Laguna, for R. B. Murdock, to cost $15,000.

Residence—Architects Dunn & Kearns, Monadnock Building, are preparing plans for a $10,000 residence to be built at Easton; also one to cost about $6,500 to be erected at San Carlos.

Garage—Architect Herman Barth, 12 Geary street, has prepared plans for a one-story and basement reinforced concrete garage and sales building on the southeast corner of Van Ness avenue and Pacific street, San Francisco, for Dr. Martin Krotosayner, to cost $16,000.

Residence—Architects O'Brien & Werner, Foxcroft Building, San Francisco, have prepared plans for a two-story and basement and attic frame and brick dwelling to be erected on Presidio avenue, between Laurel and Locust streets, San Francisco, for Abbott A. Hanks, to cost $12,000.

Apartment House—Architect Albert Farr, Foxcroft Building, has been commissioned to prepare plans for two apartment houses for the Metropolis Investment Company, at 332 Bush street, to cost about $70,000.

Residence—Architect M. J. Lyon & Co., Nevada Bank Building, has prepared plans for a two-story frame basement plaster residence for Gass Brothers, to be erected at St. Francis Wood, San Francisco, and to cost $7,500.

Apartment House—Oakland. Architect C. W. McCall, Central Bank Building, has prepared plans for a six-story and basement steel frame brick apartment house to be erected at Twelfth and Grove streets for the Bruguire estate to cost $70,000.

Store and Hotel Building—Oakland. Architect F. D. Voorhees Central Bank Building, Oakland, has prepared plans for a seven-story steel frame and reinforced concrete and brick hotel building to be erected at Thirteenth and Webster streets, Oakland, for H. A. Powell, to cost $75,000.

Store Building—Oakland. Architect C. W. Dickey, Central Bank Building, Oakland, is preparing plans for a two-story and basement steel and brick store and loft building on Webster street, Oakland, for Joseph King, to cost $12,000.

Y. W. C. A. Building—Oakland. Architect Miss Julia Morgan, Merchants' Exchange Building, San Francisco, has prepared plans for a four-story steel frame and brick walls faced with white pressed brick and terra cotta. The building will be devoted entirely to the association, containing club rooms, assembly hall, gymnasium, plunge bath and dining room, and all modern improvements, to cost $125,000.

Residence—Architects Willis Polk & Co., Merchants Exchange Building, have prepared plans for a $40,000 residence for Mr. Albert Herman to be erected at 2880 Broadway, San Francisco.

Hotel and Store Building—Porterville. Architect George W. Kelham, Sharon Building, San Francisco, has prepared plans for a two-story and basement steel and brick store and hotel building for the Bradley Company, to cost $20,000.

Store and Loft Building—Architect Theodore Lenzen, Humboldt Bank Building, San Francisco, has prepared plans for a two-story and basement steel and brick store and loft building on the north side of Market street, east of Van Ness avenue, for A. Freed, to cost $15,000.

Club House—Bakersfield. Architect T. B. Wiseman has prepared plans for a two-story and basement building on the corner of Nineteenth and F streets, for the Bakersfield Club, to cost $34,500.

Store Building—Fresno. Architects Swartz, Hotchkin & Swartz, Rowell Building, Fresno, have prepared plans for a two-

story brick store and rooming house building to be erected on J street, near Merced, for C. W. Musick, to cost $18,000.

Apartment House—Architect Frederick H. Meyer, Bankers Investment Building, San Francisco, is preparing plans for a six-story steel frame apartment house building on the corner of Sutter and Jones streets for Messrs. Starr & Larsen, to cost $100,000.

Museum—Palo Alto. Architect Frederick H. Meyer, Bankers Investment Building, has prepared plans for the reconstruction of the museum at Stanford University, to cost $150,000.

Museum—Architect Lewis P. Hobart, Crocker Building, San Francisco. The preliminary sketches have been approved and the building committee at its last meeting instructed the architect to complete the working drawings at once for the $120,000 Science Museum to be erected in Golden Gate Park.

Hotel Building—Architect G. A. Lansburgh, Gunst Building, has prepared plans for a six-story and basement steel frame Class C hotel building to be erected on the north side of Sutter street, between Leavenworth and Jones, for A. Eisenberg, to cost $65,000.

Warehouse—Sacramento. Architect C. C. Cuff is preparing plans for a six-story reinforced concrete warehouse to be erected on Twelfth street, Sacramento, for the Sacramento Warehouse Company, to cost $195,000.

Masonic Temple—Sacramento. Architect R. A. Herold, Forum Building, Sacramento, has been commissioned by the Sacramento Masonic Hall Building Association to prepare plans for the new Masonic Temple, to cost $450,000, to be erected at the corner of Twelfth and J streets.

Apartment House—Architect Edward T. Foulkes, Crocker Building, San Francisco, has prepared plans for a four-story and basement Class C apartment house to be erected on Bush street, near Stockton, to cost $60,000.

Garage—Architects Miller & Colmesnil, Lick Building, San Francisco, are preparing plans for a one-story basement steel and brick garage to be erected at Steiner and Ellis streets, San Francisco, for the Cool estate. The same architects are completing the working drawings for a Class A three-story addition to the Metropolitan Insurance Building at Pine and Stockton streets, San Francisco, to cost $100,000.

Apartment House—Architect O. R. Thayer, Merchants National Bank Building, is preparing plans for a four-story Class C apartment house to be erected on Post street, to cost $50,000.

Apartment Hotel—Architects Dunn & Kearns, Monadnock Building, San Francisco, have revised plans for a six-story Class A apartment hotel to be erected on the northwest corner of Post and Leavenworth streets, for George M. Caesar, to cost $150,000.

Wholesale House—Architects Bakewell & Brown, 251 Kearny street, San Francisco, have prepared plans for a three-story mill construction wholesale house on the northwest corner of Spear and Howard streets for Orville C. Pratt, at the cost of $60,000.

Church—Architects Reid Brothers, San Francisco, have prepared plans for a Class A church building for the Congregational Church to be erected on the southeast corner of Post and Mason streets.

Apartment House—Architect Charles J. Rousseau, Phelan Building, San Francisco, has prepared plans for a seven-story and basement steel frame brick apartment house on the south side of Post street, between Jones and Leavenworth, for John Black, to cost $70,000.

School Building—Architect Houghton Sawyer, Shreve Building, has prepared plans for a Class A steel frame brick and stone exterior and tile roof school building for the Cooper School to be erected at Jones and Lombard streets.

Residence—Los Angeles. Architect H. H. Whitley, 801 Story Building, has prepared plans for a two-story frame and plaster residence for S. M. Cooper, to cost $8,000.

Apartments—Los Angeles. The Main Building and Investment Company, 400 Thorpe Building, are preparing plans for a three-story and basement apartment house on Bonnie Brae street, near Fifth, for W. R. Neeland, to cost $45,000.

Landscape Work—Los Angeles. Architect Elmer Grey, 812 Wright & Callender Building, has been commissioned to prepare plans for the grounds of the new Polytechnic High School at Pasadena.

Residence—Los Angeles. Architect Frank M. Tyler, 908 Black Building, has prepared plans for a two-story frame residence to be erected on the corner of Twenty-fifth street and Eleventh avenue, for Mr. Eagel.

Exposition Buildings—Architect Wilbur D. Cook Jr., 520 Los Angeles Investment Building, has been commissioned to prepare plans for permanent exposition buildings to be erected at Albuquerque, N. M., to cost about $200,000.

School Buildings—Los Angeles. Architect E. L. Hopkins, 616 Delta Building, is preparing plans for a one-story brick residence for teachers, to be erected for the Wineville School District.

Brick Building—Los Angeles. Architects Hunt & Burns, 701 Laughlin Building, have prepared plans for a one-story brick store building to be erected on Moneta avenue, near Forty-sixth street, for John Hora.

Hotel Building—Los Angeles. Architect Frederick Nooman, 904 Wright & Callender Building, has prepared plans for a twelve-story and basement Class A reinforced concrete hotel building to be erected on Spring street, south of Fourth, for N. W. Stowell.

Residence—Los Angeles. Architect Thomas Preston, 827 Higgins Building, is preparing plans for a two-story brick residence to be erected at Edendale for Mr. Ditturlio.

Apartment House—Los Angeles. Architect E. E. B. Meinardus, 501 Bank Building, has prepared plans for a two-story frame and plaster apartment building at 5016 Hollywood boulevard for W. A. Freeman, to cost $14,000.

High School—Los Angeles. Architect George W. Eldredge, 521 Los Angeles Investment Building, has prepared plans for the new brick high school building to be erected at Huntington Park.

High School—Los Angeles. Architects Tuttle & Hopkins, 616 Della Building, have been commissioned to prepare plans for a one-story and basement brick high school building to be erected at Banning, to cost $23,000.

Office Building—Los Angeles. Architect E. H. Dorr, 1811 South Main street, has prepared plans for a four-story and basement brick building to be erected at Sixth and Beacon streets, San Pedro, for N. O. Anderson.

Store and Lodge Building—Los Angeles. Architect Thornton Fitzhugh, 480 Pacific Electric Building, has completed plans for a three-story and basement Class C brick store and lodge building to be erected at San Pedro for the Masonic Temple Association, to cost about $40,000.

Masonic Temple—Los Angeles. Architects Train & Williams, 226 Exchange Building, have prepared plans for the Masonic Temple to be erected at 923 Grand View avenue, for West Lake Lodge, F. & A. M. The building will be two stories and basement.

OREGON

Factory and Office—Portland. Architects Jacobberger & Smith, Board of Trade Building, have prepared plans for a factory building and offices for the Doernbecke Manufacturing Company. The building will be 60x160 feet.

Residence—Portland. Architects Claussen & Claussen, Maclay Building, have prepared plans for a two-story frame side-hill residence, to cost $6,500.

Lodge Building—Dufur. Architects S. E. Watkins & Son, Newburg, Ore., are preparing plans for a $14,000 lodge building for the I. O. O. F. lodge to be erected at Dufur.

Library—St. Johns. Architects Johnson & Mayer, Commercial Club Building, Portland, are preparing plans for a Carnegie Library to be erected by the city of St. Johns. The building will be one story and basement and will be faced with pressed brick.

School Building—Banks. Architect George R. Kingsbury has prepared plans for a school building that will be two stories and basement, 50x60 feet.

Masonic Lodge—McMinnville. Architect C. C. Robbins, Ainsworth Building, Portland, has prepared plans for a three-story brick lodge building for the Masons at McMinnville.

Bank Building—Forest Grove. Architect W. B. Bell, Worcester Building, Portland, has prepared plans for a three-story brick bank and office building to be erected at Forest Grove.

School Addition—Portland. School Architect F. A. Naramore has prepared plans for a frame addition to the Highland School at Sixth and Wygant streets.

Business Block—Portland. Architects Emil Schacht & Son, Commonwealth Building, Portland, have prepared plans for a fireproof structure to be erected for a local business house, to cost $40,000.

Church Building—Roseburg. Architects Tourtellotte & Hummel, Rothchild Building, Portland, have prepared plans for a Colonial style church to be erected at Roseburg for the First Methodist Church, to cost $15,000.

School Building—Cottage Grove. Architects Tourtellotte & Hummell, Rothchild Building, Portland, have prepared plans and specifications for a two-story brick school building to be erected at Cottage Grove.

WASHINGTON

Lodge Building—Colfax. Architect William Swain, Pullman, Wash., has prepared plans for a two-story brick building for the Knights of Pythias at Colfax, to cost $15,000.

Theatre—Annacortis. Architect F. S. Piper of Bellingham has prepared plans for a 60x160-foot fireproof theatre building for J. A. Mathesen, to cost $20,000.

Church—Spokane. Architect Charles T. Diamond has prepared plans for a church which have been accepted for the Church of Truth. The building will be stone and stucco and will cost about $12,000.

Library—Seattle. Architect W. Marbury Somerville, Seattle, has prepared plans for the Yesler Memorial Library Building. It will be two stories, concrete, stone and brick, and cost $40,000.

Hotel Building—Seattle. Architect A. Wickersham, Lyon Building, Seattle, has prepared plans for a three-story and basement 96x100-foot brick and mill constructed store and hotel building for the Yesler estate at a cost of about $100,000.

Factory Building—Seattle. Architects Steven & Steven, New York Block, are preparing plans for a factory addition to the plant of Broderick & Bascom Co. The building will be a one-story 85x210-foot fireproof brick and steel construction.

Depot—Spokane. The O. W. R. & N. Co and the C. M. & P. S. Ry. Co. will erect a Union Depot, four-story and basement, 152x300 feet of steel reinforced concrete construction faced with brick and terra cotta, and will cost about $500,000.

Mausoleum—Snohomish. The Northwestern Mausoleum Company, White Building, Seattle, will build a $25,000 steel and concrete mausoleum for Snohomish. W. Marbury Somerville, architect, White Building, Seattle.

Dormitory—Port Orchard. Architects Heath & Gove, National Realty Building, Tacoma, have prepared plans for a $100,000 dormitory for the Washington Veterans' Home at Port Orchard. The same architects have plans ready for a two-story $10,000 brick Episcopal Church at Aberdeen.

School Building—Aberdeen. Architect Watson Vernon, Aberdeen, has had plans accepted for the new $75,000 school building to be erected in that city.

Court House—Walla Walla. Architect Henry Osterman has been commissioned by the county commissioners to prepare plans for a new court house at a cost not to exceed $200,000.

School Building—Auburn. Five rural school districts have consolidated and will build a $25,000 school building in the near future.

Gymnasium—Eatonville. Architects Bullard & Hill, Tacoma, have prepared plans for the new $15,000 gymnasium to be erected at Eatonville.

Church Building—Tacoma. Architects Woodruffe & Constable, Fidelity Building, Tacoma, are completing plans for a $20,000 church building for the Holy Communion.

Library—Olympia. The Carnegie Library has announced it will build a $25,000 library at Olympia.

Apartment House—Seattle. Architect V. W. Voorhees, Eitel Building, Seattle, are preparing plans for a two-story 40x54-foot frame apartment house to be erected on Twelfth avenue for C. A. Neal at a cost of $8,000.

BRITISH COLUMBIA

Postoffice Sub-Station—Vancouver. Architect A. Campbell Hope, Empire Building, has been commissioned to prepare plans for the new postoffice sub-station to be erected in Mount Pleasant by the Dominion authorities. The building will be fireproof and cost about $100,000.

Garage—Vancouver. Architect William Frederick Gardiner, 347 Pender street west, has prepared plans for a reinforced concrete garage building in Seymour street for the Northwest Trust Company.

Garage—Vancouver. Architects Sharp & Thompson, London Building, have prepared plans for a reinforced concrete garage building on Georgia street. The building will be 60x80 feet and two stories in height, terra cotta exterior.

Residence—Vancouver. Architects Doctor Stewart & Davies, Bower Building, have prepared plans for a two-story and basement residence for Dr. J. Milton Jones on Fifteenth avenue, to cost about $6,500.

Residence—Victoria. Architect A. C. Feree has prepared plans for a handsome residence for R. H. Green, to cost $10,000. The same architect prepared plans for a residence for A. W. Beal, to cost $3,500.

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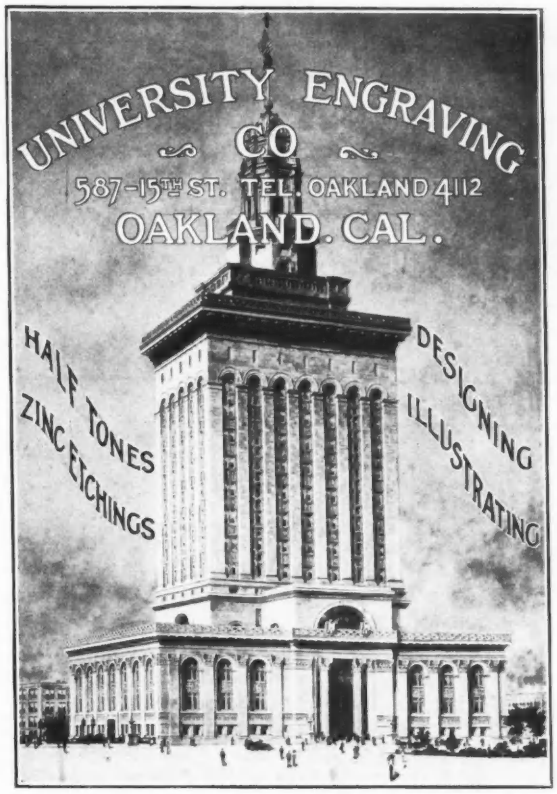

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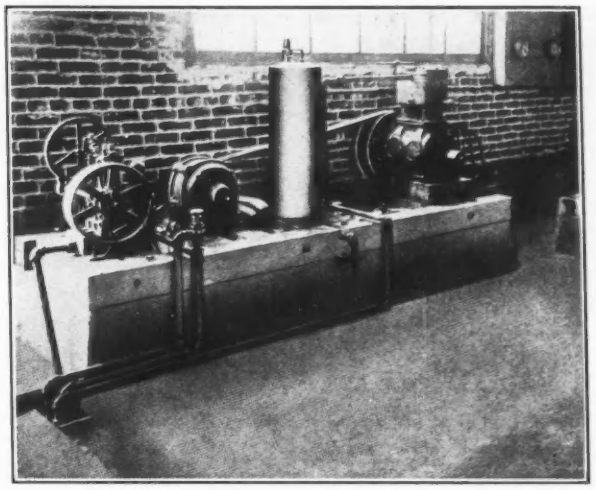

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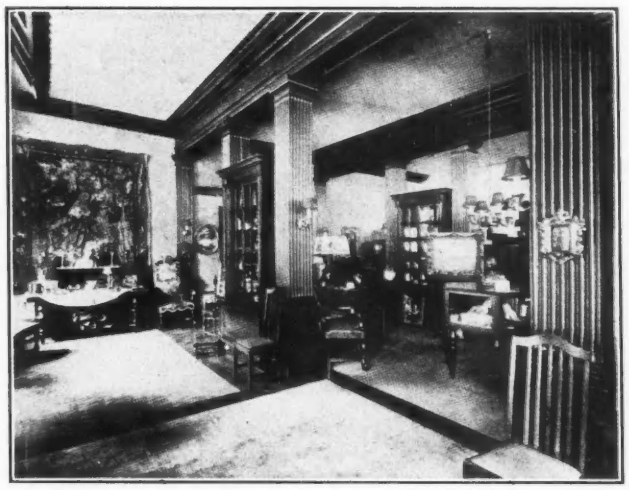

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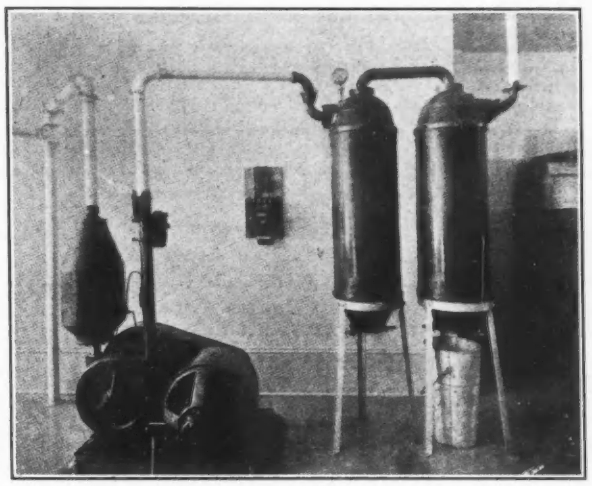

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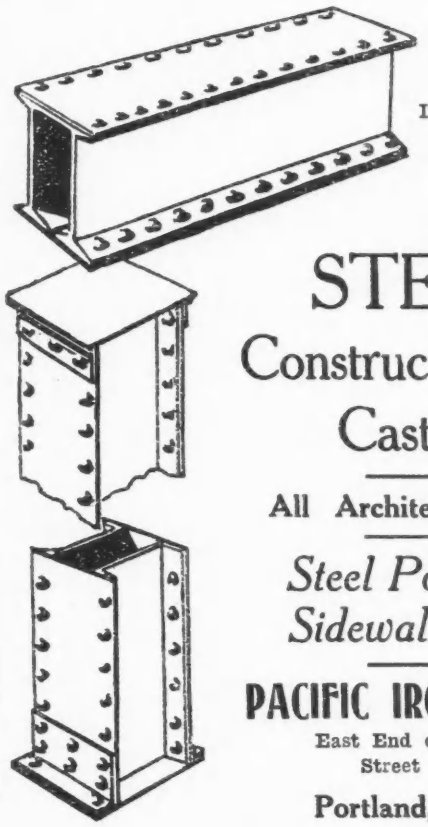

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